



Value-Based Purchasing: Making Good Health Good Business

June 2018

The Green & Healthy Homes Initiative (GHHI), founded in 1986, is a national 501(c)3 nonprofit, nonpartisan organization that provides evidence-based direct services and technical assistance to create healthy, safe and energy efficient homes to improve health, economic and social outcomes for low-income families while reducing public and private healthcare costs.

With support from the Robert Wood Johnson Foundation, AcademyHealth launched the Payment Reform for Population Health initiative in 2016 to explore improving community-wide health through the transformation of the health care payment system. As part of their efforts to identify the opportunities and challenges associated with linking payment reform to population health, AcademyHealth contracted with the Green and Health Homes Initiative (GHHI) to provide technical assistance to a large social service organization to explore structuring a risk-based contract with a major local Medicaid managed care plan to provide targeted services to a high cost-high needs population.

To learn more about the Payment Reform for Population Health initiative, visit www.academyhealth.org/p4ph.

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Executive summary

Value-based purchasing models can make good health good business by creating a sustainable business opportunity for broad investments in health, including the social determinants.

The United States has comparatively poor health outcomes.¹ Those outcomes are a function of how we fund health in the United States. We primarily pay for healthcare services through insurance arrangements, while we invest in health through other means. The system of investing in health is larger, the funding flows are substantially more complicated, and the financial benefits of good health accrue through more complicated allocations than they might otherwise or currently do. While investments in health reduce long-term healthcare services costs, the benefits do not accrue to the same party making those investments. Health departments, human service agencies, and the social sector – often short on investment dollars – see little financial benefit from saving insurers money by investing in health. Meanwhile, health insurance is a regulated business. Current regulation ties profitability to the cost of healthcare services not investments in health. Bad health, creating a high volume of healthcare services costs, is good business for insurers and certainly more profitable than proactively investing in good health, for the most part. This situation leaves no single party clearly positioned to invest in and benefit from venturing investments in health. Broad health risk-factors such as the social determinants of health go unfunded and the cost of the system funding health remains high.

We are left needing a way to make good health good business for insurers in the long run so that they, those insurers best positioned to benefit from such investments, will invest in the long-term health of their enrolled populations. If the regulators and consumers of insurance can do this, the insurers that make cost-beneficial investments in long-term health will benefit financially and be able to reinvest, all based on market dynamics.

The critical question is: “how?” How can regulators and consumers use the current regulatory system to create a funding structure that makes good health good business? There are many challenges including availability of investment capital, fiscal accountability, and current legal or regulatory frameworks. First, the creative use of the existing managed-

¹ (Bradley, Sipsma and Taylor 2017)

care regulatory framework can go a long way to addressing low-hanging fruit. Second, the right technical implementation elements of existing regulatory authority can create business opportunities for insurance companies to invest in the long-term health of populations. Finally, a new approach to insurance compensation can drive insurers to take increasing responsibility for the health of whole populations.

To drive broad investments in health, we make three recommendations that range from immediate next steps broadly available to a moonshot that can change how we fund health and make good health good business for generations to come. Arguably, all are available within the current legislated regulatory authority.

1. Make good health good business by funding what works

The current regulatory framework allows governments to move aggressively to implement managed-care programs and to use appropriately designed value-based purchasing programs to enable long-term investments in health.

2. Make good health good business through consumer information

Consumers drive business and insurance purchasers rarely understand the link between their health and their insurance purchasing decisions. Building on existing systems, governments can lead or facilitate embedding information in the purchasing process to change consumer behavior. If consumers, including governments, knew the impact their choices had on health, they would be better positioned to push the market and make good health good business.

3. Make good health good business by changing the funding model

With all insurance profitability tied to historical healthcare service costs, there will continue to be problems with finding the most cost-effective balance between paying for healthcare services and making broader investments in health, including investments to address the social determinants of health. By breaking that link, and tying funding to other measures, the system of funding health can turn our existing healthcare services cost into a business opportunity for insurers.

For example, right now, HIV programs use complex funding mechanisms across the nation.² It doesn't have to be this way. Imagine if HIV prevention was more profitable than HIV treatment. Insurance companies would be well advised financially to invest in changing the social dynamics and population-scale behaviors that lead to the spread of communicable diseases. It would be good business to eradicate HIV. The resulting savings would allow insurers to collect higher profits, while still saving the government, the taxpayers, and private citizens' money.

Insurers' healthcare-service costs are increased by serving high-cost populations like those with complex chronic diseases, allowing them to not only secure profitability from that population, but increase their profit-taking potential elsewhere through the impact on Medical Loss Ratios. If disease prevention was more profitable than disease treatment, insurers would be fighting over high-risk populations to implement preventive measures or even working together to change policies that improve health at the national level to secure profits in their local markets.

Beyond any questions of political philosophy or ethics, just as a matter of good business, there is more financial opportunity by investing in health than the status quo. This monumental opportunity can be unlocked over the coming years by taking simple steps working within the existing regulatory frameworks already available to governments, insurance plans, and service providers.

² Domestic care and treatment for HIV is estimated at over \$20 billion (Kaiser Family Foundation 2017), (HIV.gov 2018).

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Report Overview

This report provides a structural analysis of how consumers shape the broadly defined health system in the United States as well as how to improve the system using market mechanisms.

This informational document is for those interested in building a culture of health, particularly policymakers and health professionals. It will show how the flow of payments for health and healthcare can impact health outcomes by creating natural business and economic incentives to fund or not to fund services that address broad health risk-factors including behavioral, environmental, and social determinants of health (SDH). The audience should understand that:

1. The flow of funding determines what insurance market-segments exist;
2. Barriers currently exist to substantive investment addressing health-risk factors through nonmedical services that improve health and reduce costs; and
3. What role payment model innovations such as value-based purchasing arrangements can play a role in driving investments that address social determinants of health.

This is important because we can make good health good business:

- Funding for health, both healthcare services or broader investments that address health risk-factors, are governed by business and economic forces.
- Changes in the system of funding health can shift the way in which that system operates and invests in programs that address the nonmedical components of health.
- The right set of changes can produce better health outcomes for lower costs through naturally occurring competition within the health insurance markets.

This document has four major sections related to the system of funding health:

1. **Structural Analysis of Funding Flows:** Overview of how funding choices, business logic, and economic forces drive decisions about investing in health.
2. **Economics of Health:** Assessment of economic benefits derived by the system's different parts from current funding structures and the implication for a person's health.
3. **Making Good Health Good Business:** A walk-through of how investing in good health can be more profitable at each level of the system.
4. **Recommendations:** A concrete set of next steps to improve the system.

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I. How Funding Impacts Health

An overview and analysis of the structure of the U.S. health system and how it affects the inherent economic motives and capabilities to invest in health innovation.

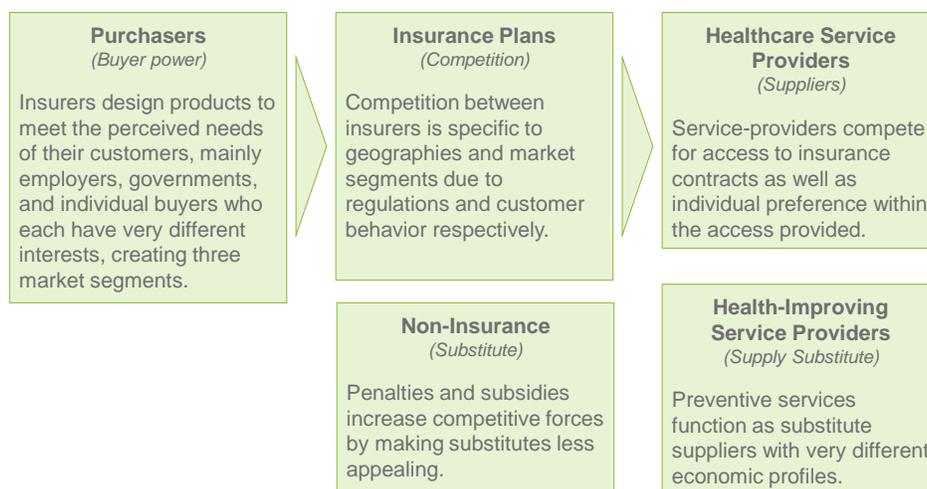
The healthcare system in the United States is complex. This section focuses on creating a model for analysis that is simple enough to be useful in providing broadly applicable insights about fundamental economic relationships, motives, and opportunities. There are limitations and exceptions to any such models, but the purpose is to identify how the system can be improved by aligning economic motives – making good health good business.

Exhibit 1



Funding flows establish the market and competitive forces that drive investments in different types of services.

Market Forces Diagram



Note(s): Individual preference indicates a person with healthcare insurance making provider choices within the options their insurance plan allows.

Source(s): GHHI analysis of publicly available information using analytical framework from Porter (1985).

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For this analysis, we will classify the system participants as purchasers, insurers, and providers, including healthcare services or broader services that improve health, *see Exhibit 1*. The primary determination of what services people receive is made by employers, individuals, and governments purchasing insurance. These customers establish the market segments and influence how the insurers compete for business. Service providers then compete over the funding flows from the insurance companies as suppliers of service contracts. Market segments will often determine what type of business offerings insurers and providers offer.

Substitutes, or the lack thereof, also shape competitive dynamics for insurance. Paying for your own medical expenses, effectively self-insurance, is the only viable substitute. That substitute is made less appealing by various factors. Regulations may require employers, individuals, or government entities to offer or secure insurance in different circumstances that are more favorable. Tax penalties alter the perceived cost-benefit of non-insurance, while those unable to afford the full cost of insurance may have access to subsidies reducing their cost-barrier. These requirements, tax-penalties, and subsidies encourage more insurance purchasing, especially in the individual market.

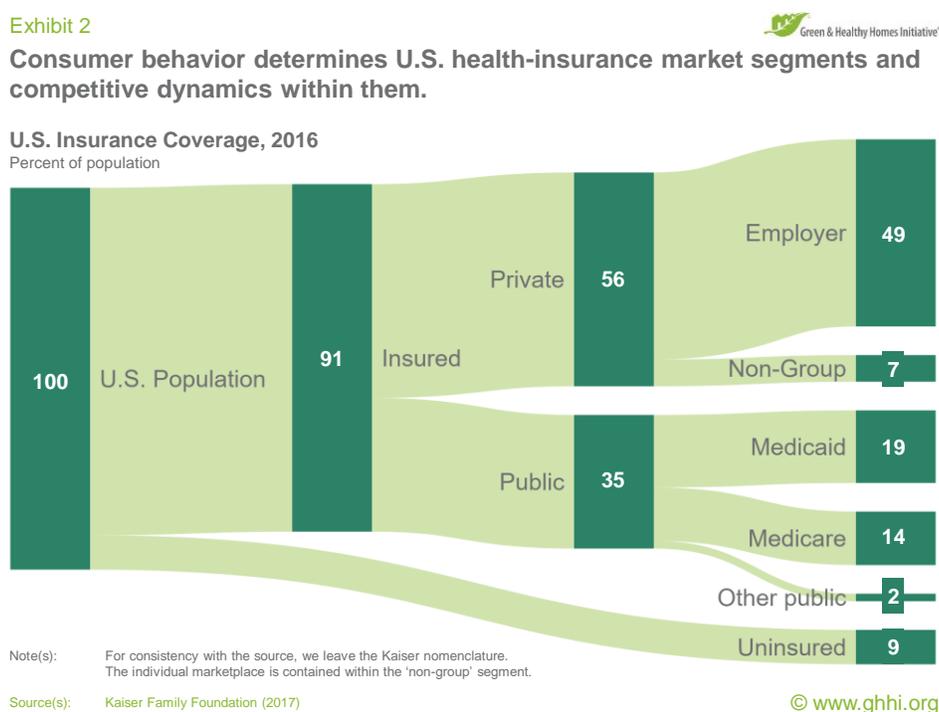
Service-provision substitutes also shape competitive dynamics. While healthcare-service providers directly compete, there are broader service offerings that improve health or are preventive of more formal healthcare service needs. These health-improving services function as substitutes for many healthcare services in that insurance dollars can either invest in health now to prevent or lessen the impact of a condition or 'wait and see' if they will need to pay outright for the more-costly healthcare services treatment later. Many services are not formally healthcare services but prevent healthcare service utilization. For example, diabetes prevention programs can prevent amputations and comprehensive home-based interventions to address the causes and triggers of asthma can prevent the need for hospitalizations and emergency department visits. Health-improving services are complementary to healthcare services from the health perspective, but from a business perspective the two are substitutes for insurance spending.

Competitive dynamics for insurance plans are also shaped by the high barriers to entry and low barriers to exiting the insurance market. It is harder to become an insurance plan than it is to wind-down operations. Creating an insurance plan requires overcoming high levels of regulation, raising required capital for operations such as paying medical expenses, and the difficulty of establishing networks of service providers who are willing to contract to accept the insurance. Meanwhile, there are no real barriers to leaving a market. When an insurance market is profitable, it is hard for other plans to enter, compete, and either drive down costs or offer more value to the benefit of the consumers. However, it is comparatively easy for an insurance plan to leave a market or market segment when

it is no longer profitable. Due to this dynamic, the insurance business tends to have higher and more stable profits margins than many other businesses with lower barriers to entry and higher barriers to exit. Insurance markets also tend to be geographically specific, usually at the level of a state due to their procurement and regulatory authority.

A. How Purchasing Insurance Funds Healthcare

Background: Parsing the health insurance market by purchaser type is the most effective way to segment that market to understand business decisions, *see Exhibit 2*.



The Kaiser Family Foundation reports that 91 percent of the U.S. population is insured. Nearly half of that coverage is funded through employer plans, which constitute the largest market segment.³ Public insurance covers 35 percent, with Medicaid covering 19 percent, and Medicare covering another 14 percent of the population.⁴ Non-group insurance – persons individually buying insurance inclusive of the insurance exchanges – comprise only 7 percent of the population and form a distinct third market segment. Government

³ (Kaiser Family Foundation 2017)

⁴ (Kaiser Family Foundation 2017)

regulatory authority extends across the spectrum. The sphere of direct influence including the public and individual markets account for 42 percent of the insurance market’s population, *see Exhibit 3*.

Exhibit 3



Each market segment has different business logic due to different purchasing behavior that drives competition.

Insurance market segments		Business logic
Employer market (49 percent)	Private funds	Employer market Employers aim to increase productivity through recruiting and retaining more-productive staff. Competition varies by employer’s human-capital strategy.
Individual markets (7 percent)	Private funds	Individual contributions Individuals determine the perceived value of largely standard plans including tax penalties for non-selection. Competition is cost-focused.
	Public funds	Subsidies and reinsurance Entry to the individual market place is based on meeting requirements for service standards and competition heavily weighted to cost-leadership.
Public market (35 percent)	Public funds	Medicaid market Entry is predicated on cost-effectiveness for implementation of legally required standard of service. Competition is based on perceived cost-leadership.

Source(s): GHHI analysis of publicly available information

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Purchasing insurance is a relatively complex affair in process and economics, *see Exhibit 4*. Insurers typically need to secure market access before they can compete for sales among a defined group of people.⁵ The role of market-making is critical to understanding how funding for insurance shapes investments in health. For example, once awarded an employer contract, an insurer has very close to a captive market where many persons do not have a better option. This means that the initial competition for the employer contract is more meaningful to the insurer, while a few persons switching insurance plans or between a plan’s options is less meaningful in shaping where the insurance plan will choose to invest. Even when consumers move to directly purchase insurance, their economic evaluation is complex. The consumer needs to weigh known premium costs and service

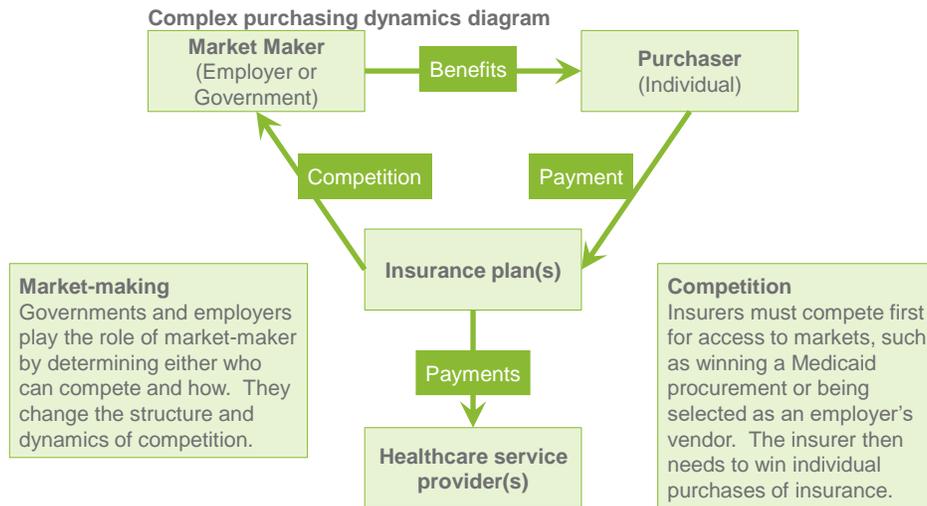
⁵ For example, the insurers may need to win a government procurement contract for Medicaid before they sign-up anyone who qualifies. Or, the insurer may need to secure an employer contract that allows them to sell insurance at group rates the employer’s employees.

costs against the abstract benefits of health provided by access to a healthcare service network.

Exhibit 4



Group-insurance competition through complex purchasing systems often mean that market-makers have more buyer power than the direct purchaser.



Source(s): GHHI analysis of publicly available information

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Employers Purchasing Insurance: Employers⁶ securing group insurance plans for their employees and their dependents are treated as employer-based plans. When procuring insurance, employers are interested in two primary things (a) the productivity of their human capital influenced by recruiting and retaining engaged employees; and (b) the impact of regulatory compliance on business through cost.

Governments establish regulatory standards for the plans, shaping the employer market dynamics. Employers then choose where to put their dollars based on their perceived value in helping to recruit or retain their desired human capital per unit cost. Insurance

Google

A U.S. multi-national conglomerate employing 333,000 persons. They are a consumer in the employer market segment and which insurance plans they see as valuable shapes how those plans do business.

⁶ Throughout the document, governments would be considered both one of the largest employers and one of the largest direct purchasers of insurance products for those qualifying for government assistance or benefits. They are unique in playing both roles. Please refer to the section most relevant for the context.

plans create market offerings to compete for those employer dollars based on what the insurance plan believes appeals to the employer.

The market strategies of insurers generally gravitate towards either ‘cost leadership’ or ‘differentiation’. That is, they either offer the lowest price among competitors (cost leadership) or they aim to charge higher rates by developing a perception of higher value to the purchasing entity—i.e., employers (differentiation). In many cases, where insurance regulations set the minimum standard for what insurance plans can offer, cost-leadership becomes about offering the minimum standards at the lowest prices. Where insurance plans attempt to differentiate, they offer benefits beyond the minimum standards to appeal to the purchasing employer. Examples of such benefits include wider networks of service providers who can offer various services, lower out-of-pocket costs, access to additional services, or even perks that their customers (the employers) may see as valuable in their human-capital strategy. Insurers may offer multiple options including different levels of differentiation designed to appeal to different groups within a company – for example a low-cost plan and a “deluxe” plan.

Employers select an insurer, typically with multiple offerings, each option with different approach, to meet their needs. For example, the plan may have a low-cost option and a ‘deluxe’ option within the package offered at the employer. Competition in employer markets is to secure contracts with employers through putting together such packages. Once an employer contract is secured, those employed become a captive market for selecting among the specific plan offerings.

Individuals Purchasing Insurance: Individuals in the United States have the option of directly purchasing health insurance. When they do so, they participate in the individual market-segment. All individual market insurance plans in the United States are regulated. Many plans are offered through the health-insurance exchanges established by the Affordable Care Act, while off-exchange plans are options everywhere except in the District of Columbia.

Governments shape the dynamics of the individual market-segment through tax penalties for individuals not having insurance, as well as regulations, subsidies, and reinsurance for insurance plans. Insurers must demonstrate regulatory compliance to operate. For insurance plans to gain access to the health-insurance exchanges, they must undertake a process demonstrating they meet additional regulatory standards and developing a market-offering that has certain standard elements. Once insurers have market access, they must compete for individual enrollees who purchase coverage for a set term (usually one year). Strong government influence, the importance of market access, and degree of actual consumer choice shape the way that insurers compete within this market.

Within the individual marketplaces, plans offered by insurers are evaluated on a standard scale based on the product offerings they present. The product offerings are categorized by color tiers ('gold', 'silver', and so on) and may have other defining characteristics such as 'narrow network', 'high-deductible', or others. This standardized communication mechanism creates a competitive dynamic by allowing a heuristic decision-making process. Individuals selecting plans will often not differentiate among 'bronze' plans, creating a strong incentive for cost-leadership (i.e., offering the lowest premium) within each standardized category. The result is usually a race for the bottom, while still meeting the minimum standards required by law. Further, there is little motive to invest in long-term health because the competition is to secure enrollees over a one-year cycle. This dynamic of how insurance is purchased in the individual market pressures plans to drive down administrative and direct service costs within the year. The dynamic does not incent, reward, or even allow long-term health investment such as preventive service offerings.

Governments Purchasing Insurance: Government agencies are some of the largest insurance purchasers in two ways. First, they purchase insurance as employers. This section will not reiterate the employer-specific considerations addressed elsewhere. Second, through procuring insurance for those qualifying for government assistance, especially through Medicare and Medicaid contracts. Federal entities play a major role in these purchases through regulations and federal funding, relevant even in state procurements. Interests vary, but federal and state governments aim to implement Medicare or Medicaid

programs in what is perceived as the most cost-effective manner.⁷ They use specific measures of effectiveness in implementing a required set of services and measure cost in the current annual reporting cycle.

Many government procurement practices incent insurers to compete using cost-leadership strategies. Government entities are legally required to use a competitive bidding processes to select insurers. The insurers are selected based on meeting the procurement requirements at the lowest price-point and insurers compete accordingly, often focusing on lower prices. Focus on price-based competition is also incited by reinsurance practices, where the lowest bid not only wins but gets a measure of protection against losses if they bid too low. Aggressive cost controls becomes a focus for most insurers.

Contracting cycles also change competitive dynamics. The duration of contracts range from annual recompetitions to relatively long five-year arrangements. Insurers competing must create a package based on expected revenue and costs. Critical to these considerations is the price they expect to be paid, which is based on historical costs, limited to a specific time-frame, and and accounting for rate adjustments within the the contracts, rather than on a rolling or lifetime basis.⁸ Plans that expect to hold a Medicaid contract for only a finite period cannot in good financial conscience include long-term investments in health with payback periods longer than their remaining contract term or those savings will likely accrue to other parties such as the state or another insurance plan.

The interrelationship of federal and state entites plays a critical role in determining state purchasing behavior. For example, federal authorities provide a majority of funding to state Medicaid programs that ensure at least a minimum standard of care for Medicaid beneficiaries. The federal government provides its funding at set Federal Medical Assistance Percentage levels for the healthcare services considered allowable medical expenses on an approved state plan. The state's competitive bidding process usually

⁷ Some states approach this looking only at the current year's budget cycle, others longer.

⁸ The math behind capturing multi-year savings becomes extremely complicated when attempting to work across contracting cycles where even having a contract in the subsequent cycle is uncertain.

defines the required services based on the state's approved plan. States have complex incentives in determining whether they will make long-term investments in health. If a state includes elements of investment beyond the state plan and those investments improve health and reduce cost, the benefits may accrue in unexpected ways. The state will spend the investment dollars, but only save the state's share of cost for healthcare expenses. Meanwhile, the federal matching dollars will disappear, saving the federal government money, but also reducing the federal assistance the state has access to.

B. How Insurance Plans Operate in Various Markets

Background: Insurance plans are often referred to by a variety of names such as health plans, insurers, insurance carriers, insurance companies, or by their specific contracting relationships with the state such as managed-care entities. These insurance plans secure revenue through competing for contracts with employers, individuals, or governments. There are stringent requirements for service offerings and operational limits across market segments. Insurance plans arrange for services to meet the healthcare needs of their enrollees, as determined by the legal arrangements within the market segment. How insurance plans approach the competition with other plans varies by market-segment and other factors. For example, insurers competing for New York City's employer market-segment will compete very differently than the insurers competing for Medicaid contracts in rural Missouri.

For each enrolled person, the plan collects a premium payment or other compensation per-member per-month. The enrollee may be required to pay for their own care up to the amount of their deductible and a percentage thereafter, though the payments may be capped. The insurance plan is then responsible for paying their proportion of the healthcare services costs. Whatever the plan has left over contributes to other costs of operating for the insurer, leaving a profit margin if available. The Medical Loss Ratio determines how much administrative spending and profitability the plan can retain. So, an insurer's potential profitability is determined by revenue less medical losses, and less administrative expenses, *please see section titled "Accounting for Good Health"*.

How Insurers Operate in Employer Markets: In the employer market, insurance plans seek to secure insurance contracts with employers. The plan will attempt to anticipate what employers believe the insurance offering is worth in context of their human-capital strategy. The insurance plans develop this value proposition by strategically contracting with providers to form networks of accessible healthcare service providers. For a cost-leadership strategy (i.e., offering the lowest premium), the plan will focus on controlling costs. Many times, cost controls are implemented by limiting service offerings, narrowing networks through which services are offered, and reducing administrative costs. Some forward-looking plans will strategically invest in services that reduce aggregate costs, where financially beneficial. For a differentiated offering strategy, the focus may vary from offering broader accessibility to services, more health-related service benefits, and additional options for enrollees regarding choices in the way care is administered – for example, access to concierge medical appointments and telehealth options are becoming more common. Differentiated plans may also offer items that have up-front costs but reduce aggregate costs, though they approach them as ways to extract higher premiums, with the benefits being ancillary to the calculation.

Insurance plans design their market offerings to secure contracts with the employer so that the plan can access the employees as a captive market. Once within the captive market, the plan will seek to drive high rates of enrollment. An insurance plan's overall profitability in the employer markets is largely driven by a volume of medical expenses, either in volume of persons or medical expenses per person. Insurers have a huge incentive to capture employer contracts as each one represents orders of magnitude more dollars than securing an individual employee's enrollment.

Individual Markets: The individual market segment is structured to drive price-based competition (a cost-leadership strategy). Insurers must first secure market access before competing for individual enrollees within this market segment. Price-based competition is incented by several benefits of market access and the structured competition for enrollees. Market entrants receive subsidies, reinsurance, and other protections that make the space desirable, while other factors like uncertainty and regulated profitability make it

less appealing. Maximum allowable profitability or other reinvestment is again driven by volume of medical expenses. The insurance plans must demonstrate regulatory compliance and establish standardized plan offering, which bear a standard ‘metal category’ tag when listed on an exchange. The standardization of plan characteristics and designation incents cost-leadership strategies within the categories as consumers will see the plans as comparable within a category and use price as the primary available decision-making criteria.

Government Markets: Insurance plans in government-procured markets will compete to meet the needs of their government purchasers. Governments follow procurement rules and processes to determine who their insurance vendors will be for Medicaid and Medicare programs. The government process starts by developing a minimum set of requirements and then to issuing a price-based competition for insurance plans meeting the requirements. The insurance plans can increase their odds of winning and potentially increase their prices by going above and beyond the requirement, in certain circumstances. The government purchaser has the option to choose any number of vendors.

This system of procurement heavily incents cost-leadership strategies. Insurance companies price their offerings based on the contract length and their expected costs. Final volume is determined either through government assignment or an open market competition to secure enrollments of eligible beneficiaries. Insurance plans do best when they secure market entry with the government and can win enrollees through cost-leadership due to the general cost-sensitivity of the populations served.

C. How Service Providers Operate in Various Markets

Background: The business models for service providers vary widely. Some specialize, while other cover a broad swath of the service delivery spectrum. Some service providers offer highly-technical clinical specialties, while others targeting health improvement by addressing broadly framed health risk-factors such as the social determinants of health. Some provide a blend of services along the spectrum. Deciding which services to offer and of which types impacts the service provider’s market position in comparison to other

service providers in the competition for insurance plan relationships. While many service providers offer a plethora of services, only certain benefits are reimbursed in certain circumstances through different insurance models. Any other services that people want are paid for independently.

Most service providers are paid based on their billable activities – they charge set fees for their services. What they charge for services also vary, with many pricing strategies relying on losing money in some areas to secure highly profitable business lines elsewhere. Profitability is a function of their service volume and average profitability for the mix of services they offer.

Healthcare-Service Providers: Funding for narrowly defined healthcare services comes predominantly through insurance plan reimbursement. Many healthcare services are capital intensive in that they require large up-front investments in property, buildings, equipment, and other infrastructure before being able to deliver the services.

Hospital Corporation of America (HCA)

HCA is a for-profit system of 168 hospitals, 116 surgery centers, and 121 access centers that employ over 200,000 people and took in nearly \$42 billion in revenue in 2016.

Consider that a visit to the doctor's office is not only paying for cotton swabs and a doctor's time but also their rent. A new hospital can be a billion-dollar investment before including high-dollar value contracts with medical professionals or ever generating a single dollar in revenue. The healthcare-service provider then seeks to capture revenue in large enough amounts to contribute to covering those fixed costs over their life of operations.

Service providers compete for insurance plan contracts, before then competing for the insurance plan's enrollee's business. Service providers can attempt to take positions as cost-leaders or differentiated offerings through the pricing in their services. Additionally, because of how broad the spectrum of healthcare services is, many service providers specialize and opt to deliver only specific services when doing so allows them to reduce costs or capture additional dollars through differentiation. The idea is that by only specializing in one thing, they can do it at extraordinarily low cost or extraordinarily well.

Healthcare service providers tend to be geographically specific due to their requirements of physical presence.⁹ To grow, geographic specificity drives service providers to compete across multiple market-segments, such as for insurance contracts offered through Medicaid, Medicare, direct individual sales including exchanges, and plans serving employers or other group purchasers. Expanding across markets in this way is most effective for cost-leaders. Providers working with the Medicaid population can more easily leverage their existing volume to develop a brand-reputation for value to expand into differentiated offerings; for example, the Cleveland Clinic has been able to do this. The same focus that can be effective in created differentiated offerings is often antithetical to pursuing volume.¹⁰ It's easier to start low-cost, build volume and a reputation for quality, then start offering additional differentiated services. It is not impossible, but more difficult and more risky to the core strategy to start as a 'deluxe' or premium-brand and then try to compete on cost when being paid on a fee-for-service basis.

Healthcare-service providers are also impacted by the market dynamics of substitutes, while not as directly as in other fields. While there is no 'substitute' for a hospital admission, there are alternate spending options that mitigate the severity or reduce the likelihood of needing healthcare services. These activities serve as indirect substitutes that often require spending much earlier in the lifecycle of an enrollee to be effective.

⁹ There are examples of institutions that are world-renowned or attract patients from far away, but the majority of dollars for the healthcare system does not follow this pattern. Additionally, increasing availability of telemedicine services may have an impact on the current situation.

¹⁰ For example, both prestigious orthopedic programs and behavioral health service programs have focus and can differentiate to attain higher than average margins. The investment in high-cost prestigious surgeon contracts can bring in higher margins from higher revenue. Focusing on serving a specific high-risk population with behavioral health needs can mitigate risks and lower the costs of care, securing higher margins at the same price. Both approaches differentiate through focusing.

Health-Improving Service Providers: Other organizations offer services that improve health but are not narrowly defined healthcare services. Programs that feed those experiencing food-security issues, improve or provide housing, and many others can meaningfully contribute to health but are not considered healthcare services, nor are they reimbursed by insurance plans for the most part – though there are trends among some plans to explore these options.

The Green & Healthy Homes Initiative (GHHI)

GHHI is a 501(c)(3) non-profit with the mission of breaking the link between unhealthy homes and unhealthy families. As a service provider, GHHI directly improves homes from a health and safety perspective preventing asthma attacks, household injury, and lead poisoning by improving the built environment.

Organized data on aggregate investment in addressing broadly defined health risk-factors are sparse. Many entities such as governments, private citizens, and foundations invest in health through various mechanisms that fund this group of health-improving service providers. Governments also contribute to other entities funding health programs through regulations. A bevy of government programs require nongovernment investment in the public's health. Consider that housing codes require private investment in the built environment, otherwise improper ventilation could result in higher rates of asthma.

Health-improvement services are also governed by competitive dynamics, though often additionally competing with healthcare services through temporally indirect substitution. For example, anyone can choose between a group of contractors to address a leaky pipe. The leaky pipe would otherwise cause mold that triggers asthma attacks and hospitalize children living in that home. In this case, acting competes with the option of inaction. By not choosing to fix the pipes, the choice is made to risk a future hospitalization for asthma later. Fixing the pipes is not just about choosing between health-improvement through housing or not, it is about choosing between health-improvement through housing or the risk of a subsequent healthcare expense. The financial decision is made even easier when the property owner must pay for the repairs but not the hospitalization, while the insurance company pays for the hospitalization but cannot be reimbursed for the home-repairs. Due to this dynamic, health-improving service providers need to compete not only

among themselves, but also against dynamics that incent inaction and paying for only healthcare services providers.

The dynamics of insurance funding (i.e., how insurance plans earn revenue) creates constraints for health-improvement service investments and limits the value-proposition of those investments. Their value, measured in revenue less costs, depends on the effectiveness of the insurance plan's value-based purchasing program design to ensure commensurate compensation. When the plan does have effective programs, the investments in health produce cost-savings and incentive payments, while the cost is limited to the shared savings or risk. Health-improving services are uncompensated under revenue models that do not include value-based purchasing appropriately. Incentive arrangements or pay for performance programs do not fundamentally make good health good business, but provide stop-gap measures with inconsistent results that rarely extend beyond the temporary programs.

Integrated entities: There are many types of integrated entities. Integrated entities are those that contain one or more insurance purchaser, insurance plan, or service provider. Vertically-integrated entities are those that have operations at multiple levels, such as an insurance plan that also has a healthcare service or health-improvement service provider operations. Many managed care entities are moving in this direction due to investments in

Kaiser Permanente

Kaiser is a vertically integrated health insurance plan and service provider. Kaiser generated nearly USD 65 billion in revenue. The organization employed over 185,000 including over 18,000 physicians. Kaiser operates multiple health plans across 8 regions in the United States.

care-coordination teams and investments in direct health-improving services. The economics of integrated entities are more complex and often require specific analysis. The guiding principle is that the net marginal value for the whole organization is most important, rather than gains or losses in one part which may be offset by others.

II. What is Good Business?

A review and discussion of how the funding flows for the current healthcare system in the United States shapes our healthcare spending and needs.

Good business can be defined in many ways. Here we investigate decisions or activities as they generate ‘value.’ The narrowest definition for ‘value’ is generating economic profitability, but other concerns are certainly important. Some may define value as generating free cash-flows, others may include their perceived ‘value’ of a strategic position in a market, and others may include moral or philosophical elements. In the context of health, ‘value’ can be a frustratingly abstract concept.

The health system’s funding is largely shaped by consumer behavior and government regulations, which force those abstract concepts back into dollar form. The market for health insurance forces the consumer to actively set a price for the plan’s ‘value’ inclusive of the nonmonetary concepts. The same is true in the market for services, both healthcare and health-improving services more broadly. This section explores the implications of the business motivations for how those dollars change hands. We will explore how the business logic of those motives has shaped the offerings that insurance plans have and use to compete for dollars and how the same business logic drives them to choose between paying for healthcare services or to make broader investments in health, including addressing health risk-factors such as the social determinants of health.

A. What is Good Business for Health Insurance Purchasers?

Background: Buying health insurance is good business for consumers when they get more out of it than they put in. The employers, individuals, and governments that fund the healthcare system through purchasing insurance have potentially the most nuanced and complex decision-making motives. They must weigh highly uncertain and unknown abstract and qualitative benefits against very finite costs. They do this in a constantly changing environment, where the likelihood of something happening tomorrow carries different weight depending on the decision-makers’ roles within different areas of the system. Consider a 10-year investment in changing smoking rates within a population. The investment may pay remarkable health-dividends and financial benefits, but if the decision

maker will not be there to realize those benefits, they may prioritize keeping the current budget under control and not invest in that long-term investment.

Purchasers must weigh the benefits of paying for insurance against the costs. For many, there are legal requirements to provide minimum insurance coverage for specific populations such as their full-time employees or persons meeting other requirements. For some providing insurance benefits is a form of nonmonetary compensation that can attract better talent, while for others providing insurance acts as a safety net against potentially more disastrous or socially unacceptable outcomes for themselves or their families.

One conspicuously absent but critical element of consumers purchasing behavior is the impact on health that insurance has, or which insurance plan most favorably impacts health. Market information for purchasers plays a key role in shaping consumer behavior and without the health impact being known, there is little room for anything to drive consumer behavior beyond insurance price, healthcare services available, and the network providing those services.

Those purchasing insurance rarely benefit from direct investments in health. The reason for this is that insurance rates rarely consider those outside investments. For example, employers and their employees are rarely rewarded with lower premium costs for gym usage. Governments must spend money to run anti-smoking campaigns but their Medicaid plans rarely send the State a check if the smoking rate decreases. Further, for health investments to work, they often need to be made early in the lifecycle of a disease such as preventing chronic conditions, developing good behaviors and habits to reduce diabetes rates, or changing social perceptions of smoking. Making investments, especially in health, takes long-term vision and an appetite to accept risk. Few employers or governments are willing to or set up to take such ventures in the health arena.

Employer Insurance Purchasing Economics: Employers offer health insurance for two reasons – the first being that they are required to do so under many circumstances and the second being the human capital productivity value. Where required, providing health

insurance is a cost of doing business. Alternately (or additionally), better health insurance packages are a form of nonmonetary compensation that can be used to recruit and retain more productive employees. Employers weigh these benefits against the cost of their insurance decisions, including the required cost of their plan options that the employee must pay, reducing their wage compensation and the employer's ability to recruit talent.

In the competition for human capital, employers can attempt to find low-cost insurance plans or aim to provide differentiated value to their employees – a choice they should align with the organization's desired human capital goals. For example, is the employer trying to recruit in highly-competitive markets such as for software developers? The employer's choice creates multiple viable market strategies for the insurance plans. When employers seek to differentiate in their human capital practices, the insurer can do the same with their insurance offerings – a potentially beneficial alignment of both. Within the employer market, individual employees do choose which plan option they want, but do so as a captive market within the options available from the chosen insurance plan. Few employees go outside the insurance plans offered through their employer so the insurance strategies within the market-segment are dominated by the employer's purchasing behavior.

The insurance market segment for employers is built around standard market information. Employers benefit from offering insurance plans with high perceived value to their employees, shaping how insurers approach the employers. Insurers can only compete on the elements comparable across plans, frequently covered services, network access, and price, but not the impact on health. Health is only indirectly impacted, measured, or used to drive consumer behavior. Employers, therefore, benefit from offering more services, more access, and lower cost to the employee. Given this dynamic, the employer market, as a whole, will tend toward more and more expensive options as differentiated options are offered in each package. It should be noted that employers, in representing more dollars, have substantial buying power – the larger the employer, the larger the buying power.

Individuals Insurance Purchasing Economics: Individuals purchase insurance directly. It makes good business sense to do so when the perceived value exceeds that of not purchasing insurance. These decisions are shaped by the individual's perception of information available, such as costs, regulations, or market dynamics.

Individuals' perceived value of insurance is dependent on the expected benefits¹¹ from having insurance coverage less the expected costs, with expectations being critical. Market information plays a central role in shaping those expectations through principles of behavioral economics. Few individuals set out to purchase insurance by researching what the average medical utilization is for a person in their circumstance. Fewer still will create a stochastic analysis of marginal cashflows based on that need.¹² Many individuals purchasing insurance do look at the advertised elements and anchor a very qualitative measure of the benefits before ranking other plans in a relative comparison. They compare benefits such as services offered, network access, and other factors to determine an intuitional value. The final abstraction may or may not be representative of the actual financial value. Due to the limited information available to individuals, fair expectation of benefit from having insurance in a period is an abstracted matter of opinion.

Individual perception of expected costs is very real. The individual purchasing insurance gets to see how much money the insurance options cost monthly in premiums; however, the out-of-pocket expected costs may be more abstract. Due to this, individuals may weigh the premium costs more heavily than the future potential costs that may never materialize.

On the other side of the equation is the perceived value of not having insurance. The Affordable Care Act adds new dynamics as regulations, subsidies, and tax-penalties for non-insurance have increased competitive pressure and moved more people into the market for purchasing insurance. The tax penalties for being uninsured create a concrete cost

¹¹ This includes the impact insurance has on health, but as it is an abstract concept with complex dynamics, it will likely be weighted inappropriately in the consumer's purchasing behavior, if at all.

¹² For example, premium costs less medical cost-savings expected attributable to the insurance plan and risk-adjusted for the time-value of money.

for the noninsurance option, putting a finger on the scale.¹³ Subsidies act in the opposite manner, by reducing the cost of insurance options, further tipping the scale and moving more people into the insurance market.

Standardization of the plans and the market information available through categorizing at actuarial levels such as ‘gold’, ‘silver’, and ‘bronze’ plans have reduced the ability for firms to differentiate and has incited a race to the bottom by offering the most narrowly-scoped package that meets the approved criteria for a designation at the lowest price possible. This has been effective at driving competition to price-based cost-leadership approaches to minimum standards; however, it has also reduced the incentives for long-term investments in health. Additionally, the high degree of turnover among insurance plans, a key element driving price-based competition, has removed the long-run benefits of preventing chronic conditions.

Government Insurance Purchasing Economics: Health and healthcare economics for government purchases of Medicaid and Medicare insurance are substantially different for a variety of reasons. Government purchasing touches many different parties at varying levels, each with their own set of fiscal responsibilities and accountabilities. Government agencies are responsible for implementing programs that meet a set of legal requirements for providing access to insurance, under the leadership of an agency administrator, who is accountable to a political leader in turn. The political leader is then accountable to the public for effectively meeting target cost-measures. The political leadership is very quantitatively accountable for the budgetary concerns of the program, while there are much more abstract and less universally viewed measures of programs exceeding expectations by producing other value. The resulting dynamic is that the economic incentives for government funders are heavily weighted towards cost-pressure, which they pass on to their insurance purchasing behavior.

Consider the extremely simplified example of a Medicaid program that makes a one-time investment of \$5 million to permanently lower costs for the state by \$1 million per year

¹³ Under recently enacted federal legislation, beginning in 2019, the tax penalty for individuals who do not maintain minimum essential coverage is reduced to zero, effectively eliminating the individual mandate.

for the foreseeable future. Despite the benefits, the state's Medicaid director has good reason to forego the investment because of the fiscal impact – the investment is immediate and the benefits are not. If the administrator proceeds, the following year's budget will increase, driving up either their debt, cause program cuts elsewhere, or an increase in taxes. The administration will be accountable to the public for those changes while the benefits will accrue years after. Further, real-world projects are not clear-cut. They usually involve multiple government entities participating with insurers, service providers, and members of the public. Real-world projects require appeals to the public about the abstract value of investing in health, long-term non-monetary benefits, and even philosophical questions about the role of government may come into play.

Additionally, political administrations tend to be short-lived compared to the life span of an individual. Governors are elected for either two or four-year terms, while Medicaid directors very frequently change between administrations and may also change within them. In the above example, a Medicaid director may not be in place to see the first savings roll in, but will be fully attributed increasing the budget by \$5 million by the incoming leadership. This arrangement creates few incentives to invest in the full human life-cycle or projects to break the generational links for some health conditions – critical components of improving health. These complications further muddy the waters for nongovernmental participation as insurance plans, service providers, and civil society partners must take the risk that administration priorities will not change during the life of the project.

States also receive substantial federal assistance in paying for Medicaid and other programs that fund the healthcare system. The federally-matched component substantially shapes state behavior by incenting spending for services with federal matching and disincenting those without. For example, a hospitalization may be covered by a Medicaid program and eligible for federal matching funds, while a service that can prevent the need for a hospitalization is not. Under normal economic circumstances, preventing the medical need for the hospitalization at even a penny cheaper is in the collective government's financial interest. States, however, will not act in this manner because of the financial matching dynamics.

For a state receiving a 50 percent federal match, the legal minimum¹⁴, preventing the hospitalization only saves the state half of the cost of the hospitalization while requiring that they pay the full cost of prevention. Few states or other entities can afford to act against their own financial interests consistently. For this reason, states are generally averse to investing in preventive services with the federal matching component unless the matching dollars will proportionately fund those services. To return to the earlier example, the decision to invest \$5 million of state funds to save \$1 million per year for the state really means that the federal government and state each save \$500,000 – a 50-50 split. The state’s payback window is now 10 years instead of 5 because they save the federal government’s future costs – a problematic and complex dynamic. No state wants to get rid of their federal match, but they do want to be able to more strategically invest in health.

Different parties have different perspectives, but beyond political or philosophical considerations, good business and good economics for governments is a complicated matter that requires balancing complicated fiscal realities to derive net benefits. While the potential has yet to be realized, there are opportunities for collaboration within and across agencies as well as outside government.

B. What is Good Business for Insurance Plans?

Background: Insurance plans use profitability to keep score,¹⁵ revenues less costs. They often have broader considerations related to mission and other factors, but as businesses they cannot operate continuing to take losses. The primary drivers of revenue are the volume and average price of enrollments, while the core costs of the business model are covering medical expenses included in their insurance plans.¹⁶ Many insurers have also moved to actively managing their enrollees’ health to some degree when this aligns with their revenue models.

¹⁴ (Centers for Medicare & Medicaid Services n.d.) & (Kaiser Family Foundation 2018)

¹⁵ More sophisticated measures including return on newly invested capital or marginal risk-adjusted cash-flows are more appropriate, but for the sake of this discussion profitability suffices as shorthand.

¹⁶ Many insurers have other business operations or businesses that generate revenue either directly or through their core operations. For example, insurers typically generate investment income from managing their floats (the financial reserves they accumulate from premiums less the healthcare expenses they pay out).

Insurance plans' decisions, especially regarding the balance between focusing on healthcare services expenses and broader investments in improving health, are driven by their business models. The primary business models are activity-based models (often referred to as fee-for-service models), managed care, and value-based payment models.

Under traditional activity-based business models, insurers financially benefit as a function of the volume of persons enrolled in their plans and the difference between the premiums they collect from the enrollees less the insurance plan's coverage of healthcare expenses. Insurers would be incented to decrease the healthcare costs of their enrollees, however, in most cases there are regulatory caps on insurers' administrative budget, inclusive of profit margins, as a percent of medical expenses. This limits the potential profitability to a function of healthcare expenses and removes the financial incentive to invest in health broadly, beyond the medical expenses to which their profit margins are linked.

Managed care payment models change the business logic slightly. The general concept is that an assessment of the historical costs of a population's healthcare expense determines what the future expectation should be. Insurance plans can then profit in the current period from reducing the healthcare service costs for the population, but would stand to take the financial losses in that period if the healthcare service costs are above expectations. This relationship is impacted by two market shaping dynamics: limiting administrative budgets, inclusive of profitability, to a percentage of healthcare services cost and tying future costs to historical expenses. The collective impact of these two dynamics is that insurers benefit when there are high historical costs to drive up expectations and the insurer hits their exact profitability limit. In this model, insurers benefit most from investing the fewest dollars in health to get to the maximum profit state. Additionally, insurers may have reinsurance or stop-loss policies in place. These mechanisms make it financially advantageous to have inflated healthcare service expenses now, because they will not take the loss but will have a larger profitability opportunity in the future due to a higher baseline.

Value-based purchasing models are a general family of ‘alternate provider compensation models’ that ‘reflect the value of outcomes over the volume of services provided’. They provide a way to change the relationship between historical healthcare expenditures and profitability for insurance plans. For example, an insurance plan could pay for services that prevent healthcare service expenses. The plan would set out to measure the impact the preventive services have on the cost of healthcare services and pay the nontraditional provider of those preventive services for their value – an amount up to the healthcare service expense savings they generate. When those value-based payments are treated as healthcare service expenses and factored into forward-looking expectations of healthcare services costs, insurers maintain their profitability opportunity while transitioning dollars from healthcare services into services that improve health and reduce costs. Advanced value-based purchasing arrangements also add a layer on top in the form of performance incentives. Under these models, when appropriately implemented, insurers profit most when they can have the highest number of enrolled persons and drive down the healthcare service costs, retain a percentage of the value-based purchases as a nontraditional service provider partner, and earn their incentive¹⁷ payments. Better health becomes better business.

The final note on insurer economics is certainty in forward-looking expectations of revenue and cost. For example, a rapidly changing policy landscape or pharmaceutical industry pricing strategies will shape their investment decisions.

As the policy landscape for regulations, program requirements, and contracts are more certain over longer time-frames, insurance plans can make long-term decisions about what investments in health to make. If insurance contracts only span a single year, it is hard for an insurance plan to make investments in health that will improve their profitability more than a year in the future. They will need to risk-adjust the future earnings potential, while realizing certain costs. This makes such strategic investments less likely

¹⁷ Many value-based purchasing programs started as and continue to operate alongside pay for performance (P4P) programs that pay quality incentives to organizations that meet certain goals. As earlier noted, these programs do not fundamentally change the landscape, but create market irregularities, temporary focus, and increase administrative costs for the entire system due to reporting. Incentives can still be a valuable tool, but do not change basic operation of the system.

and less profitable. Consider hepatitis treatment, high but known costs were projected over many years and factored into rates. With the advent of curative treatments, the aggregate cost may be lower, but the insurance plan would be required to pay high costs in a single year with no assurance that they will benefit from the enrollee staying with the plan. Having a very concrete downside and a less certain benefit over time will discourage insurers to make such investments.

Ultimately insurers must ask the question: How profitable is it to improve the health of a person who may not be with my plan in the future?

Economics of Insurers in the Employer Market: Insurance plans first compete to win employer contracts, then to win the enrollment of the employees. To win the more impactful employer contract, the plan must develop an offering based on what it believes the employer will see as cost-beneficial in terms of regulatory compliance and human capital productivity. Employees have little direct buying power in this arrangement as health benefits are only one component of the entire employment package and little incentive to go outside of the employer-negotiated options. Securing the employer contract prevents most cross-insurer competition for enrollees except employees, especially families, that have multiple employer options to select from. The employees also have little incentive to look for outside options as employers are typically able to negotiate lower rates to insure their employees as a group due to their buying power as large consumers. Taxes and subsidies (i.e., employer premium contributions) also encourage participation, which heightens competition by encouraging more employees to opt for one of the insurance options.

In terms of competition among insurance plans, adding in benefits that improve health rather than access to healthcare services is only sensible when net marginal impact to the plan is positive. The plans consider expected volume of enrollees the plan can capture, profitability per enrollee, and regulatory maximums for profitability to make their determination. Cost-leadership and differentiation strategies both consider this equation but approach it differently. Cost-leaders seek primarily to increase market-share through

lower prices while differentiators seek primarily to increase margins and extract the maximum value per unit of volume.

With profitability limited to a proportion of healthcare expenses, there is little incentive to invest heavily in health-improving services in either strategic approach. The possibility of any increasing opportunity for profitability is removed and the long-term impact of any reduction in healthcare expenses would ultimately diminish the future opportunity for the plan to generate profits at the same level.

Economics of Insurers in the Individual Market: Managing a high volume of healthcare services spending at expected costs levels is good business for insurers in the individual markets. Market dynamics incent insurers to offer minimum standards of service supported by razor-thin operating costs using short-term cost-benefit calculations. There is little perceived benefit associated with long-term investments in the health of enrollees through the individual market and reducing the expected costs for a population results in lower profitability.

Not all individuals purchasing insurance do so through the Affordable Care Act-associated exchanges, though many do. Those exchanges provide a structured market that shapes insurance offerings. Participating in those exchanges offers many benefits for plans and individuals through practices of reinsurance, subsidization, and taxation penalties as well as the inherent marketing value. Plans are offered a degree of reinsurance, which prevents the plan from taking financial losses if they set their rates too low and allowing them to compete aggressively on price. Subsidization for low-income individuals benefits both the plans and individuals. Individuals pay lower direct costs because of the subsidy and plans benefit from having more individuals able to purchase insurance at their stated prices, when including the government subsidy. The tax penalties for uninsured persons also benefit insured individuals and plans through a more complex mechanism.¹⁸

¹⁸ From the individual's perspective buying insurance, it makes good business sense to do so when you expect to have insurance pay more than you will. So many healthy, especially young persons who do not expect to need substantive medical care will forego insurance as it would not make sense to pay a regular premium

From the insurance perspective, profitability is a function of the number of persons you insure and the difference between how much money you are paid for the insurance less the costs of insuring the persons. Tying profitability to a percentage of healthcare services cost, through administrative budgets, limits the profitability that insurers can make to the volume of healthcare expenses they pay. To be more profitable, they need to seek larger market-share of expenses.

For insurers to access the individual marketplaces, they first engage in a process that ensures regulatory compliance and eligibility to offer plans on an exchange. Doing so also secures benefits for the plan such as reinsurance and other protections and results in categorizing plan options appropriately, such as gold or silver plans. The system of plan categorization creates strong competitive forces for cost-leadership. When plans are required to offer roughly the same benefits, the differences between the options become less of a focus of consumers and the price difference becomes more of a focus.

Perceived standardized service offerings incent cost-leadership strategies. The consumer's primary decision-making criteria becomes the price within the mostly standardized offerings and this starts the race to have the lowest price within one of the standard tiers. Insurers profit from the difference between price and cost so lower prices pressure the insurer to lower their operating costs in the process. Lower operational costs on single-year contracts are typically achieved through controlling the current costs rather than making investments that reduce long-term costs. While the majority of the costs to an insurer is paying out benefits claims by enrollees, these costs are not directly controllable

for a plan that they will not use the benefits from. The tax penalties shift this balance by creating a cost of inaction, the healthy young individual now has a health insurance cost whether or not they buy insurance. The additional subsidies and the lower prices allowed through reinsurance further shift the dynamic in favor of making good business sense for individuals to buy insurance.

In addition, more people with lower healthcare service costs mean lower average prices for all persons, where the low-cost group effectively subsidizes the high-cost groups that otherwise could not afford insurance. This plays out through a banding mechanism, where the highest price an insurer can charge is linked to the lowest price they can charge. For example, under a 4:1 rating band, a healthy young adult may be charged only \$100 per month, while an older adult who smokes may receive the highest monthly bill of \$400 per month. For the insurance plan to reduce their price for the young adult to \$50 per month and try to win more enrollees through lower prices, they would also need to reduce their price for the older adult to \$200 per month.

and usually accrue over an extended period. An insurer's overhead costs are more easily controllable and become the primary focus.

Additionally, the high level of consumer freedom and low degree of stability associated with the individual markets are good reason for cost-leadership and minimum viable offerings. The high level of influence that political processes have on insurance exchange dynamics through reinsurance, subsidies, and others have created substantial uncertainty in how to approach the whole individual market-segment. Further, there is little conviction among insurers that their individual exchange enrollees will stay with their programs beyond the current enrollment cycle or that the insurer will be offering a plan option beyond that term. These factors create a substantial risk-weight removing most of the perceived benefit from long-term investments in health.

Economics of Insurers in Government Markets: Insurers operating in the government markets such as Medicare and Medicaid must first compete for large government procurement contracts. The contracts are typically for a standard set of services, such as insurance coverage for all required Medicaid services in the state and possibly additional operational requirements. Plans frequently propose additional efforts that they see as value-generating for the government to win the contract.

Medicaid plans are usually very high-volume endeavors with requirements that limit the profitability of operating within the market segment and limit narrowly what services will be reimbursed. As governments offer strict minimum requirements for their programs, there is often a high level of competition for cost-leadership positions with less focus on the differentiated aspects of an insurance offering; that is, offering high-end or premium Medicaid insurance packages is widely seen as conflicting with the market-segment's purchasing reality. Low-income persons comprise the majority of the Medicaid population and they infrequently have the funds to make investments in insurance coverage that go above and beyond minimum standards. This pushes the market segment into a highly-competitive dynamic where cost-leadership strategies are pursued aggressively. Further, insurers have few options to push down costs. They can invest in lowering the need for healthcare services within narrowly-defined parameters without earning reimbursement

for their investments, negotiate lower contractual rates with their healthcare-service providers, or cut their own administrative costs to generate profitability.

There is little to no economic incentive to reduce the healthcare-service cost of their patients through improving health. Profitability is typically tied to a percentage of medically-necessary service spending, measured in dollars. This means that creating the maximum window for profitability is achieved by serving the largest number of persons with the highest medical expenses. For a plan to invest in reducing its enrollee's medical costs by 10 percent, they would also reduce their allocable profit potential by 10 percent. So long as this link is in place, the economics of the Medicaid market will mean that the winners are those who serve the largest populations with the highest medical expenses.

C. What is Good Business for Service Providers

Background: Service providers¹⁹ tend, in general, to maximize profits by offering high price-to-cost ratio services at the highest volumes possible. The largest expenses for most medical service providers are the human-capital costs and capital-intensive investments in property and equipment. For example, a magnetic resonance imaging (MRI) device may be relatively cheap to operate, but the upfront purchasing cost is substantial. The incentive is to increase capital asset utilization rates by billing as many people as possible to use the machine before it gets outdated or is no longer usable. The same holds for human capital where the goal is to improve the human-capital asset utilization by having the staff perform as many billable activities as possible per dollar they are paid.

Good business practices for service providers drive the ways in which they operate and compete. Prices are largely determined in negotiations with their insurance partners based on the perceived value of the healthcare services. The supplier power that the service providers have in their relationships with insurers is determined by the service provider's brand strength, network size, and services offered. The brand value is established

¹⁹ Service providers take many forms and the purpose of this paper was not to investigate those different forms, rather to illustrate the relationships between how service providers are paid and their business models, showing how that impacts health. Service providers can be individual providers, groups thereof, hospital systems, or even less traditional forms. How they are paid and what they are paid for determines a great deal.

over time through the creation of a public perception of value being provided, such as exceptional quality of service, the use of cutting-edge technology, and prestigious staff. The size of the network provides a more concrete economic means of competition by influencing the relative supply of services available with or without participation of the provider network. The relationship of supply and demand has a measurable and calculable impact on the expected cost of services. The breadth of services offered by the network also plays a role as the ease and cost of doing business with a broad provider network can be a competitive advantage.

It should be noted that market positioning as a premium service provider often requires different organizational infrastructure and cultural elements than one pursuing cost-leadership strategies. Because of the required infrastructure differences, it is complicated for a service provider to pursue opposite strategies in different market segments. For example, successfully pursuing cost-leadership in orthopedic surgeries is typically seen as incompatible with large investments in the best educated surgeons, latest technology, and state-of-the-art operating theatre. Due to this dynamic and the tendency for cost-leadership strategies to be more effective in pursuing volume, service providers that pursue cost-leadership strategies can compete across various market segments while differentiators can find it more difficult to work outside of the employer market where differentiation is a more viable strategy.

Economics of Service Providers in the Employer Market: Service providers in the employer market segment can pursue differentiation strategies such as investing heavily in brand-recognition, offering premium services, or even negotiating insurance coverage of non-traditional services. The service providers can argue that the additional services create value in excess of cost. These options are available to service providers because the insurance plan can compete either through differentiation or cost-leadership in the employer market-segment.

A distinguishing feature of this market is that the price negotiations are not limited to a required set of services for which the insurer will be reimbursed or reinsured against. For example, the medical service provider may also opt to provide non-traditional services

that the insurer's enrollee will find valuable, whether or not they have a health impact. So long as the offering favorably influences employer purchasing behavior, the service creates value for the insurer. In the employer market, service providers can tout advanced technologies, unique expertise, and centers of excellence, among other options that allow them to pursue higher rates within the market. This strategic option for non-cost competition can relieve cost-pressure for the service providers. Things like concierge medicine, virtual conferencing with experts, and consultations with internationally-renowned experts are becoming more common and allow for new lines of business.

For service providers in the employer market, offering services that improve health without billing for an allowable medical expense has limited financial utility. There are frequently limits on the profitability that a plan can extract that are set as a percentage of the plan's paid allowable medical expenses. For example, where a state's implementation of Medical Loss Ratio does not include value-based purchases of care as allowable medical expenses or their insurance plans do not formalize value-based purchasing programs to capture such value, a service provider can still provide these services, but the insurance plan will not be able to count the services in their Medical Loss Ratios or prevent premium slide. Employers rates will not be directly impacted in future rate-setting cycles as prices are market-determined. In turn, the insurance plan will only be financially incented to make limited investments with service providers of this type. This limit, even in the highest reaches of the premium employer-insurance market segment, prevents aggressive investments in health beyond healthcare services without also including those investments in health as allowable medical expenses – for example, through tracking them in value-based purchasing programs as elsewhere.

Economics of Service Providers in the Individual Market: Service providers contracting with insurers in the individual markets are constrained by the competitive dynamics in the insurance market segment. The insurers are pressured to compete for cost-leadership within a minimum-viable plan offering that meets the classification criteria – for example, they are likely to ask: 'what's the cheapest way we can put together a gold plan?' Few individuals in these markets are likely to spend the time and effort to investigate the

value-added by health-improving services available with different plans. Consumer behavior is unlikely to drive insurers to seek such services from their contracted service providers.

As the dominant strategy in the individual market is cost leadership, the service providers that are most likely to win contracts with insurers pursuing that strategy will align with them by pursuing the same strategy. Service providers that can offer the lowest average total cost of expected service utilization and do so while meeting standards for quality of care are the most likely to secure the insurance contracts. Securing insurance contracts helps lead to a high volume that drives profitability for a cost leader.

Again, in the individual markets, regulatory limits linking profitability to a percentage of narrowly-defined healthcare services as allowable medical expenses removes the incentive to invest in broader health improvement.

Economics of Service Providers in the Government Market: Service providers serving insurers in the government markets, such as Medicaid, benefit from being able to control their own costs while maintaining or increasing price levels. Large, regulated contracts make prices for services hard to negotiate and regulated benefits virtually remove the ability to offer add-on services beyond the legally required packages. Service providers are left to pursue cost-leadership strategies. Those strategies are pursued through two methods: maximizing asset utilization or investing heavily in cost-reduction.

Due to the high level of cost-based competition, many of the providers that pursue differentiated market-positions in other segments find it hard to compete on a cost-basis in these markets. A few notable exceptions do exist and most rely on investing heavily in a quality of care that reduces overall costs. This, however, has limits. As the restrictions on payments exclude the ability to earn compensation for investing in the health of the enrolled population, there is a negative incentive to do so. Further there are conflicting motives for service providers to cannibalize their own existing profitable operations.

III. Making Good Health Good Business

How and when good health can be good business for each of the system actors.

Rather than uproot the entire system of health, health insurance, and health-related services to start from scratch, it is possible to rework key elements within the existing system to make good health good business. Doing so has many advantages but will require changes. Regulators, purchasers, plans, and providers will need to change their business models which will materially impact existing firms. Those that can adapt to the new system will find new opportunities, while those that cannot successfully adapt will fall out of the market.

The key challenges for the transition are:

1. Purchasers do not have the information they need to make the changes to how they procure insurance to drive market change;
2. The value proposition for insurance plans to meaningfully invest in improving the long-term health of populations is lacking under current funding structures; and
3. Even if the above were addressed, there will be a substantial adoption curve for purchasers, plans, and providers to change the way they do business.

Ideally, the systems change would come from making the existing market structures more effective and more efficient. The key question then becomes what can be done to align the natural economics of business so that good health is good business and what are the implications of those actions?

Increasing value for purchasers in our case is ideally improving the health impact of their spending. Right now, value is traditionally measured in access to healthcare services and cost, but purchasers can get more for their money. Under the right circumstances, insurance plans might start investing in the food security of communities, education for low-income families, the safety of family homes, or even research and development of non-medical treatment programs. Improving the value to purchasers of their spending will depend on making good health good business for them.

Fiscal drag is an analogue to capital availability. Governments, low-income persons, and other groups have issues with finding the resources to make initial investments (i.e., have an opportunity cost of deploying capital), but must also consider the potential future expenses should the program fail. Governments must struggle with competing interests and any dollar allocated to one program is either a dollar less another program receives in the budget cycle or a dollar of debt they should account for. Low-income families regularly have to make financial trade-offs as well. An investment in health through purchasing high-quality water filters to reduce lead-poisoning risks may mean the family does not have food on the table and they cannot take a loan out against the future scholarship opportunities lead poisoning would rob them of.

The “wrong pockets” problem also plays a role. While agencies responsible for health create financial benefits across government, they rarely have the opportunity to reinvest their returns or even track what financial benefits a program really has for other agencies. Approaches that span across an entire government can be highly effective, but are rarely implemented. Consider the U.S. Department of Housing and Urban Development (HUD): they are given an annually allocated budget to operate programs which function as investments in health such as lead poisoning prevention and other prevention activities. Those benefits accrue to multiple levels of government, corporations, and individual persons; however, they do not accrue directly back to HUD. HUD’s budget does not increase based on increased impact, better health, lower healthcare costs, and other factors. Critical to making good health good business is ensuring that a critical mass of the financial benefits of undertaking investments in health accrue to a party that is positioned to capture that value. There is a strong argument that the most direct way to solve the “wrong pockets” problem is by only having one pocket. Some communities are exploring the creation of a “shared pocket” through community wellness trusts or other ways to blend funding streams into a shared financing mechanism that could potentially leverage these value-based payments for long-term sustainability.

Creating an equitable way to financially benefit from systems change is a complex proposition. For governments to benefit, their public-service value needs to increase through a combination of better public-service and lower costs. Private parties such as insurance

plans and service providers will need a larger aggregate profitability opportunity. While finding a way to increase the total profitability opportunity for insurers and benefiting purchasers is a difficult proposition, it can be accomplished. The key is aggregating multiple spending streams and putting them in direct competition with each other so that market mechanisms can compete to drive inefficiency out of the system.

Why pay thousands of dollars for a hospitalization if a small investment in health could have prevented the need for it. By putting the insurance plans at the helm of spending on health rather than just healthcare services, the insurance plans can secure higher aggregate profits by driving down aggregate costs. Solving this ‘wrong-pockets’ problem can be as simple as running all the finances through the same insurance pocket. There will need to be checks and balances, but letting an insurer cover a preventive service like a vaccine has long been the norm while removing the mold in a family’s bathroom that is causing asthma attacks and hospitalization is something that is just coming to the forefront of the debate.

What is Good Health and How do you Measure It?

A key question in making good health good business is determining what good health is and then figuring out how to measure it. While a formal definition of health is well beyond the scope of this paper, a pragmatic working definition that can function in the business context is not. Health and need of healthcare services are inversely correlated, so assuming²⁰ that everyone has access to the healthcare services they need under the current funding system, high healthcare services cost is a pretty good measure of poor health and, therefore, reductions in cost compared to expected costs is a pretty good measure of positive impact on health.

Insurance plans that are intimately involved in healthcare service billing have access to healthcare cost information and the ability to use it to determine the health impact of

²⁰ Not to argue the point either way.

coverage, healthcare services, and services that aim to improve health. There are, however, barriers to using this information, appropriately analyzing it, and making it public to drive business decisions.

Healthcare service costs are sensitive information, governed by regulatory compliance, and are often sensitive proprietary information. Even if insurers wanted to publicly disclose the health impact of their plans, there is no standard for reporting the health impact that an insurance plan has on enrollees. These challenges can be overcome; for example, simple measures such as an index of relative changes in expected medical costs could easily drive consumer behavior. Other more specific measures could present opportunities to drive investments to address health risk factors/non-medical services. Taken even further, compensation methods that are not predicated on historical healthcare utilization could create huge public health investment opportunities for the private sector that could shift billions of dollars into addressing the root-causes of poor health across America.

Accounting for Good Health

The impact of accounting practices in insurance finance is material to the discussion. How you classify each dollar coming in and each dollar going out can determine whether or not a plan is profitable, whether it makes good business sense to invest in good health, and what the future revenue will be for government markets. While there are issues with how to classify what dollars are coming in, the key issue is that of expenditures. Generally, there are allowable medical expenses and other spending – that is, dollars expended that meet a strict definition of what is medically necessary for the care of the patient that is usually explicitly defined by the relevant regulatory agency.

Classifying allowable medical expenses plays out through two primary mechanisms of Medical Loss Ratios (MLR) and premium slide. Enforcement of loss ratios affects plans within a given year, while premium slide plays out over an extended period. Medical loss ratios play out in all insurance market segments, while premium slide plays out only in markets where a plan's income is a function of the future expected medical expenditures – usually limited to government managed care market segments.

How expenses are accounted for is a technical but important aspect of making good health good business that needs to be addressed formally at many levels. First, the technical solution needs to be in place. Value-based payments for care need to be treated differently than value-based payments representing incentive or pay for performance arrangements—paying a bonus to a provider for coming in under budget should not increase the base rate in the future. Value-based care payments are payments specifically for the care itself. Consider the impact of transitioning from fee-for-service payments for orthopedic surgery to a bundled payment for an orthopedic episode of care: actuaries will need a record of the bundled payment to determine an appropriate compensation rate²¹ for the enrolled population. If that record is not provided, the next year's compensation will slide by the amount of payments that were not recorded, captured, and used in rate-setting. The same holds true for any value-based payment addressing the social determinants of health.

²¹ Payments on a per-member per-month (PMPM) basis.

Individual value-based purchasing arrangements may contain elements of care and incentives. Value-based care payments need to be treated as if they were allowable medical expenses in all ways, including tracking them as encounters in the same encounter or claims data-systems as doctor's office visits or hospitalizations. Incentive payments should not be counted as allowable medical expenses or included in the encounter record.

Second, this issue is not widely understood or publicized. Even though value-based care payments are to be treated as allowable medical expenditures for the purposes of calculating medical loss ratios, many plans and even some state officials are unaware and lack an understanding of the impact that their treatment can have on making good health good business for insurance plans.

For many government market segments, the process of determining prospective rates is such a dense and technical process that the importance of such issues is not broadly understood. Further, the implementation mechanisms are often obscured by relationships with vendors and, perhaps overly-complicated technical analysis involving patient cost information, which few parties have access to verify appropriate implementation.

Two key takeaways are warranted:

- Value-based purchasing payments are to be treated as medical expenses in the determination of Medical Loss Ratios²² but investments in health that are not accounted for through formal methods are not and cannot be.
- Value-based purchasing payment can and should be included in the prospective rate-setting process by federal and state authorities.

The remainder of this section addresses the improper accounting for these issues.

The Medical Loss Ratio: Understanding the impact of Medical Loss Ratios (MLR) is critical to making good health good business because they limit the dollars available to fund

²² (Department of Health and Human Services 2016, p. 27,587)

investments in health to a percentage of allowable medical expenses. The MLR is generally calculated as the dollars expended classified as allowable medical expenses per dollar spent that is not an allowable medical expense. The MLR is expressed as a ratio (e.g., 80:20). Determining which dollars count towards which side of the ratio materially impacts the financial decisions made by insurance plans.

While managed care plans are free to spend their premium dollars as they see fit, the impact of the medical loss ratio is substantive. Any premium revenue collected in excess of their loss-ratio limit will be returned in the form of premium rebates. The impact is substantial.

Consider the following example:

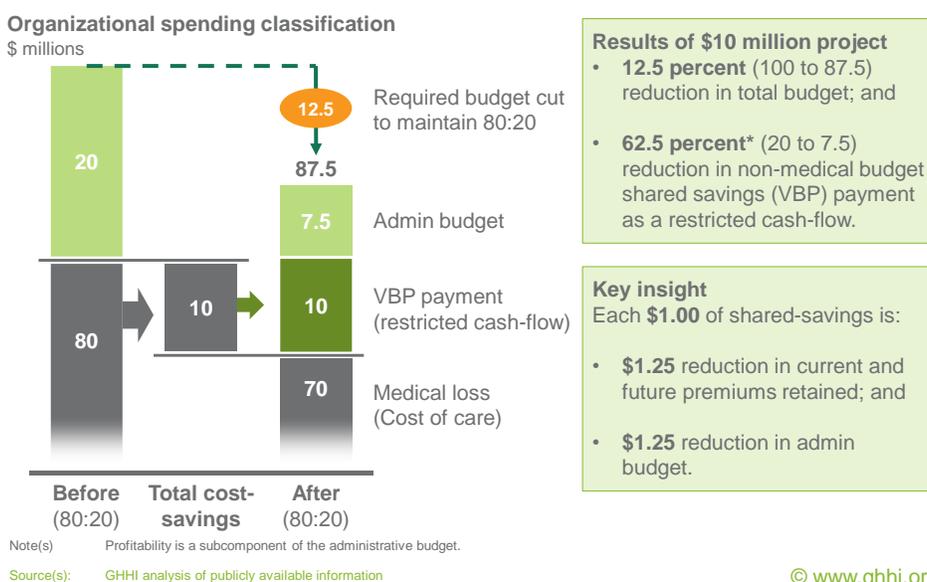
- A Medicaid managed care plan (the plan) has premiums of \$100 million in a year.
- Under an 80:20 medical-loss ratio (MLR), the Plan must spend a minimum of \$80 million in medical expenditures.

Now consider what happens if the plan were to enact a \$10 million value based purchasing program designed to fund an investment in health that is cost-effective, but the value-based purchase is not treated as an allowable medical expense, *see Exhibit 5*.

Exhibit 5



If a value-based purchase is treated as administrative spending, there are disproportionate impacts on plan finances.



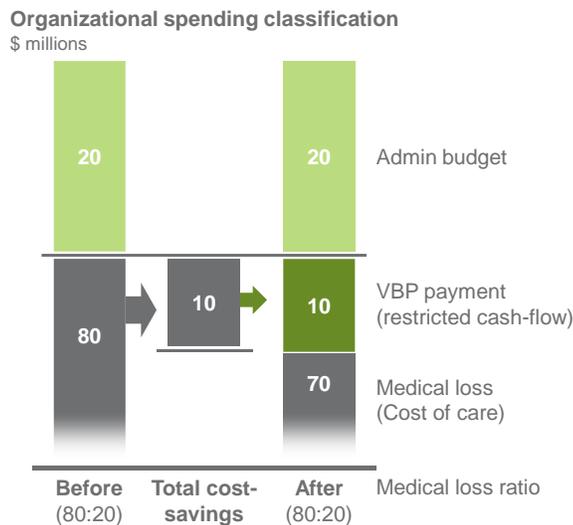
The potential negative financial impact on the plan within that year alone would create enough of a barrier to dissuade it from undertaking the project or arrangement. This is the case with any investment in health that reduces allowable medical expenses. The same impact occurs whenever a plan runs a program improving the health and reducing the expenses of its enrolled population, when they are not given a mechanism to appropriately account for their investment in health. The value based purchase provides such a formal mechanism to allow for proper accounting.

If the same plan were to undertake the same program, but the value based purchase was treated as an allowable medical expense, the plan would suffer none of the same negative financial impacts, *see Exhibit 6*. They would no added profitability from medical expenditures, but no losses. Additionally, the plan would benefit financially from any formal incentive payments or quality improvement programs as well as the market impact of being able to secure additional enrollees because of their willingness to invest in health.

Exhibit 6



If value-based payments are treated as medical expenses there is no negative impact on the insurance plan.



Results of \$10 million project

- The MCO maintains their 80:20 ratio for their plan;
- Future rates not reduced even if based on historical medical expenses; and
- Up to \$10 million available for funding investments in health.

Key Insight
Treating value-based purchasing as allowable medical expenses in rate-setting can:

- Prevent negative incentives to investing in health; and
- Convert current medical expense levels into sustainable funding opportunities.

Note(s) Profitability is a subcomponent of the administrative budget.

Source(s): GHHI analysis of publicly available information

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Fortunately, formal value-based purchasing programs are currently considered as allowable medical expenses in determining medical loss ratios.²³ However, many programs that are designed to improve health do not have a formal value-based purchasing program to account for their impact. Plans then receive the same negative financial impact from their investments in health, which is a lost opportunity for them to formalize those programs and capture the value they are already creating.

Premium Slide: The impact of classifying expenses also impacts the future earning potential of plans when historical medical expenditures determine future premium income – largely in the government’s managed care market segments. In these segments a formal methodology is used to set prospective rates based on historical data. There are multiple junctions where this occurs including determining the baseline medical expense level, adjusting for trends, and adjusting for acuity, *see Exhibit 7*. All three elements require an assessment of a plan’s historical medical expenditures to determine the forward-looking payments. The specific issue is whether investments in health are treated as allowable medical expenses or not.

²³ (Department of Health and Human Services 2016, p. 27,587)

Exhibit 7



Premium slide removes many incentives for managed-care plan investments in health-improving services, especially long-term investments.

Components of Capitation Rates



Source(s): GHHI

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Returning to the example:

- A Medicaid managed care plan (the plan) has premiums of \$100 million in a year.
- Under an 80:20 medical-loss ratio (MLR), the Plan must spend a minimum of \$80 million in medical expenditures.

In the following year the plan will receive \$100 million in premiums.²⁴ However, if the plan were to undertake a \$10 million dollar value-based purchasing program, the following year’s premiums would be reduced to \$87.5 million due to the reduced administrative budget implied by their Medical Loss Ratio.²⁵ Without including value-based purchasing payments in the way rates are calculated, no plan with such a formal rate-determination

²⁴ This represents a simplified calculation, but even using the more complicated overall process the results are directionally correct. In many state Medicaid markets, a single Medicaid plans actions will impact themselves and others, while playing out over a period of years – through nonencounter data collection for example. In a formal GHHI analysis, the net insurance impact is the same, but gains and losses were distributed in such a manner as to further disincent any one play investing in the health of their populations. Those that invest in health will have the largest negative impact, while those that do not will stand to benefit from the pooled payments.

²⁵ Again, representing a simplified, but directionally correct assessment of impact. In many states, the net impact on insurers will be the same but play out over a period of three years and disproportionately negatively impact those plans proactively undertaking value-based purchasing.

process will be able to undertake value-based purchasing without a negative financial impact.

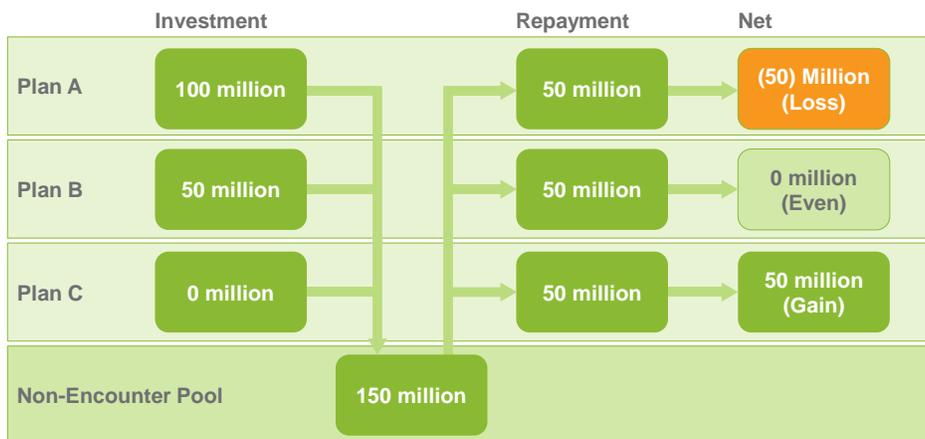
As with the medical loss ratio, even when value-based purchasing arrangements are included in the prospective calculation of managed care premiums, those programs undertaken outside of such formal arrangements go on to have material and negative financial impacts on plans.

Non-Encounter Data and Pool: The use of non-encounter data has allowed some states to ‘creatively’ fund programs that improve the health of their populations as a work-around for the restrictive definition of allowable medical expenses. This approach too has unintended consequences, *see Exhibit 8*.

Exhibit 8



The use of non-encounter pools penalize plans that invest in prevention by subsidizing their competitors who do not.



Can a plan be expected to subsidize a competitor and compete?

Source(s): GHHI

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Non-encounter pools typically record all non-encounter payments across plans and then pools those payments together. In the future rate-setting, all plans are allocated a proportion of that pool regardless of how much they contributed to it. In effect, this takes dollars away from those plans that invest in preventive efforts outside of the encounter

record and subsidizes those plans who only act narrowly within the encounter records. While there are plans that are willing to undertake projects despite this effect, they are financially disadvantaged because of it. With less future income, they are less able to make future investments, lower their prices to consumers (or governments), and compete within their markets. The more worrisome aspect may be that those plans that do not contribute to the non-encounter pools receive the most financial benefit. This means that they are better able to compete through lowering prices and other mechanisms and, over-time, will come to dominate their markets.

The Accounting Entry: The mechanics for the system are simple. Addressing issues only requires the partners to undertake their value-based purchasing program and then include appropriate records in the encounter system of record for equal treatment as encounters in rate setting, *see Exhibit 9.*

Exhibit 9



The solution is to include the value-based purchasing payments in the claims record as an allowable medical expense for rate-setting.

Claims example (select data-fields)

MemID	Claim	FromDate	ToDate	ICD	HCPCS	Modifier	Paid
1	120	1/1/2012	2012-12-31	Asthma	VBP Enrollment	2017A.12-E	0
1	127	1/1/2012	2012-12-31	Asthma	VBP Payment	2017A.12-P	926

Data availability

Once the claims are in the system, they can be used to implement value-based purchasing adjustments on the same level with traditional medical expenses.

Next steps

Contractual implementation is the key, your value-based purchasing strategy must treat the medical payments as a cost of care.

The Value of Investing in Health

How should the value of investments in health be accounted for? This paper argues that value-based care programs should be treated the same as covered services and medical expenses. Specifically, retrospective payments for the health and healthcare cost impact that value-based care programs have should be included as if they were any other payment for medical care.²⁶ However, the initial, up-front investment dollars should not be counted as medical expenses under the current regulatory system.

The approach of using actuarial determination of savings, recorded as value-based purchasing encounters has many advantages in theory and practice. In theory it allows for a very clean assessment of the economic value of health and allows partners to collaborate on more holistic approaches to health. In practice, the approach uses the existing standards and processes as a foundation for payments, which allows making good health good business by prospectively investing in health.

The theory of this approach is that, by aligning savings determination methods with existing regulatory systems and payment methods, a higher level of financial accountability and transparency is possible. An ancillary benefit is that interested third-parties may be able to step in to fund programs that accomplish other objectives while falling short on a strict ROI basis, for example by covering the shortfall to the insurance plans. While a simple case would be a foundation deciding to cover the short-falls in a program's budget, other use cases present. For example, a public health department may be able to partner with the Medicaid program to leverage existing public health funds to actively drive investments in their communities. This alignment of mechanisms allows for blended investment funding for programs well beyond existing methods.

In practice, it allows for easy integration with existing standards and processes. For example, the use of data systems to monitor, assess, and evaluate programs. Including the savings or risk-based payment as a value-based purchase in the same way as medical

²⁶ So long as the value-based care payments are determined by an actuarially sound method.

claims is very practical and avoids many of the issues associated with reporting non-encounter data in some states. It also allows CMS to develop their payment methods by increasingly including payments in the base capitation rates to avoid supplementary payments or arrangements for services or products that address the social determinants of health or other health-related areas.

In the rest of this document, the value of investing in health approximates that actuarially-sound determination of medical-expense savings, payable as a value-based care encounter.

A. Making Good Health Good Business for Purchasers

Background: Purchasers consume perceived value. Getting to better consumer value for purchasers is a function of information availability, relevance, and specificity. If purchasers do not have information to make their decision or that information is not relevant to their specific purchase, they will likely receive poor value. The health insurance purchase is no different. If the only available information is generally on the access to healthcare services and not specific to the impact those healthcare services have on the consumer's health, then the consumers (i.e., purchasers of insurance in this case) will drive to get great access to healthcare services but cannot drive to get better health. That is the dynamic of our current system, *see Exhibit 10*.

Exhibit 10

Insurance purchases fund healthcare-service delivery.



Source(s): GHHI analysis of publicly available information

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Governments, employers, and individuals, as insurance purchasers, are funding the system of health insurance and, in turn, service providers. While purchasers are aware of which healthcare services their health insurance purchases provide access to and (possibly) what those services will cost, they are unaware of what impact on health their purchase is likely to have. Right now, providing good access to healthcare services is good business for health insurance, but changing that dynamic can benefit all parties including the insurers. By creating some measure(s) of good health and implanting health impact in the purchasing process for consumers, consumer behavior can change how health insurance plans approach competition, *see Exhibit 11*.

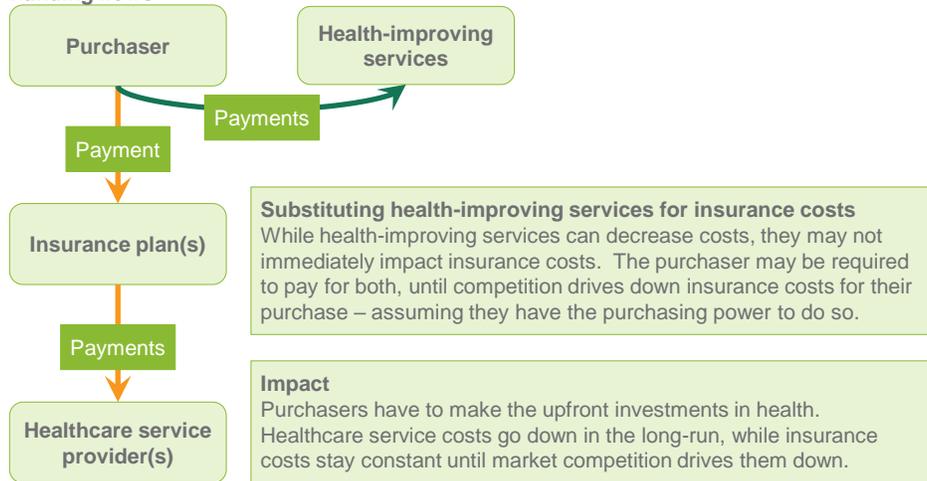
Consumers (i.e., insurance purchasers) have other concerns as well. To be supportive of systems change and adopt a new system, the consumers need to see that they are getting more out of their spending in better health, new services, and other perceived benefits. Further, getting there cannot act as a fiscal drag for the consumer. The initial outlays for investments cannot come from the consumers, but rather there needs to be some impetus for the other parties to make investments in health to really drive spending.

Exhibit 11



Funding health-improving services is a long-term investment that can drive down insurance costs, but increases current capital requirements.

Funding flows



Source(s): GHHI analysis of publicly available information

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Current arrangements require consumers to purchase both health insurance and to purchase health-improving goods or services as investments in health – a double-expenditure functioning as fiscal drag. Additionally, few consumers are rewarded for their investments in health through lower purchasing costs for health insurance. Rather, the benefits of the reductions in cost accrue to the insurance plans that cover healthcare expenses. The net impact of these issues is that consumers must pay for both insurance and investments in health on the front-end, then take the risk that they will have the purchasing power to save money on the back-end through a combination of lower insurance premiums and healthcare service costs. While some consumers may be able to afford such investments, others may not, and everyone will have fewer dollars to spend on other priorities in the short-run.

Good Health as Good Business for Employers as Health Purchasers: Employers benefit from purchasing health insurance through the human capital impact. When insurance helps the employer recruit, retain, and increase the productivity of their employees, the employer wins. Employers can start making good health good business by developing an internal understanding of what business impact health has on productivity. What does

sick-time cost their organization? What impact can health-focused programs really have on the health and productivity of their work-force? These questions are really the tip of an iceberg that needs to be tackled, but moving in that direction, even with simple metrics can pay dividends.

An employer trying to attract and retain talent would do better to advertise the health benefits of their programs. For example, when recruiting an adult male in their mid-forties the employer would benefit from advertising that their health benefits included a 10 percent reduction the population's rate of heart-attacks, 15 percent lower rates of diabetes, and 40 percent reduction in hospitalizations from certain medical conditions. A lower rate of heart-attacks is much more tangible to the prospective employee than the list of services that will be covered if and when a heart attack might happen.

Consumer behavior is naturally value-based and will naturally determine what price consumers are willing to factor in for improved health. Employers will inherently move towards contracting for insurance that has the best value; value would be measured in the employer's perceived ability to recruit and retain talent because of their health-improving services offered. Insurance plans then will start to move in the direction of competing on health impact.

Employers, in procuring insurance contracts, can start to ask for, if not require, insurers to disclose the impact their programs have on the health of enrollees. The employer can and should use that information as a factor in their procurement. Governments should also remember that they are employers and, as some of the largest employers in the country, governments have huge buyer power. Governments requiring this disclosure in their contract negotiations could be enough to move the industry in this direction by making metrics available and shaping which metrics insurers calculate or disclose. Many other employers would likely not have the buyer power to move an insurance plan to calculate their plan's health impact on enrollees and make that information public.

Good Health as Good Business for Individuals as Health Purchasers: A similar but distinct dynamic is present for individuals in the individual market segment. A lack of information relevant to health has led to a growth in healthcare service access through insurers with little investment in health more broadly. Making good health good business in the individual markets will also require major changes best facilitated by governments. The same mechanisms as allowed in the government market segment could incent investments in health for insurers participating in the individual market. The outcome could also be equally impactful. Beyond the specific health benefits, the federal and state governments stand to save considerable funds if the investments in health can meaningfully impact the number of persons qualifying for medical assistance or lessen their costs while enrolled with the programs. Putting someone on the right course of health for life can pay substantive long-term dividends for government entities.

Good Health as Good Business for Governments as Health Purchasers: Governments are particularly sensitive to the issues of fiscal drag. For a government, spending money twice in one period as an investment in the future is particularly difficult given the political realities of governing in the United States. For governments, there are substantial benefits to finding a way to push the process of investing in health down to insurance plans, rather than directly running the programs. The government entity does not need to increase budgets, creatively allocate funds, or worry about parties with different interests that might see their currently-allocated funds in jeopardy.

The challenge with pushing insurers to invest in health is that governments currently tie their insurance purchases so tightly to healthcare-service costs that they rule out the ability for insurers to invest in health more broadly. Fortunately, these dynamics are changing with value-based purchasing models. Governments can enable insurers to create alternate provider payment initiatives that include value-based purchases as allowable medical expenses. When appropriately enabled and implemented, these arrangements can turn good health into good business for Medicaid and Medicare programs.

The best practices for advanced value-based purchasing arrangements that turn good health into good business for Medicare and Medicaid:

- Allow for long-term contracts with service-providers that will be honored by the state;
- Provide notice that value-based purchases are allowable medical expenses; and
- Remain indifferent to the investment and financing of the services.

Insurer finances change broadly by their revenue model; consider the example of investments in health that prevent hospitalizations. Under fee-for-service revenue models, an insurance plan immediately would have the cash outflow from investing in health and less long-run billable activity (and therefore incoming funds) from preventing the hospitalization included in their Medical Loss Ratio.²⁷ Those cash flow dynamics lower the plan's ability to retain current profits. Whether or not the benefit accrues to the plan becomes a complicated question²⁸ often leading to lower profits. Under basic managed-care arrangements, the insurance plan's immediate expenditures increase for the investment, but their healthcare costs decrease. Unfortunately for the insurer, in the future periods their revenue will also decrease by the amount of healthcare cost savings they generate. The net impact is a loss of investment dollars for the insurance plan and savings for the government purchaser – a relationship few insurance plans would pursue. With value-based purchasing, the service provider makes the investment in the health of the population, so there is no cost to the plan. When the healthcare services costs go down, the insurance plan passes on the savings (or a portion thereof) to the service provider as the payment in a value-based purchasing arrangement. The insurance plan's next year revenue, cost, and profitability remain constant.²⁹ The enrollee benefits from the investment in health. All while the service provider has received compensation for a service that was previously uncompensated.

²⁷ The total value of medical expenditures included in the Medical Loss Ratio establishes the limit for their profit-taking ability and determines future revenue through the capitation rate-setting process.

²⁸ Net of (1) incremental changes in revenue associated with quality payments or incentives, (2) cost of the intervention in the current period, (3) future impacts expected, and (4) lower limits on profit-taking ability due to lower medical expenditures. The impact of "4" alone can take precedence where a firm may be required to return profits to enrollees through rebates.

²⁹ The insurer may and likely should receive some bonus or incentive payments for improving the health of the population.

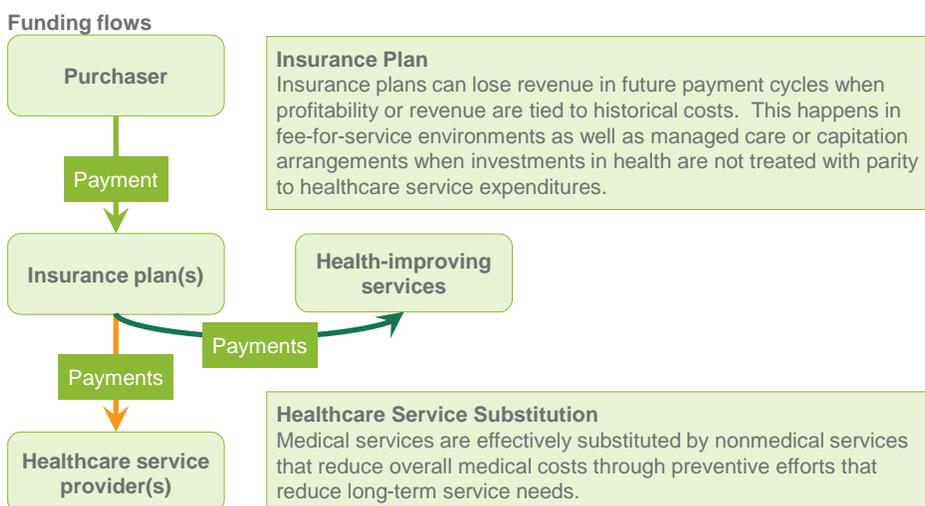
B. Making Good Health Good Business for Insurance Plans

Background: Insurance plans do face risk in transitioning business models. The key is that there is more opportunity for the insurance plans in making good health good business. The key element is that while profitability for existing services may decrease as a function of volume, by including health-improving services under the purview of what insurers are expected to cover, the total profitability spending amount increases. As insurers start to bring interventions that address the root-causes of health under their purview, the total range of service offerings will increase from nutrition assistance, to social supports, to the full gambit of health-improving activities, *see Exhibit 12*.

Exhibit 12



Insurers can invest in health-improving services to reduce their long-term healthcare service costs, if they have an appropriate revenue model.



Source(s): GHHI analysis of publicly available information.

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The spending relationship between healthcare services costs and spending on the broader factors determining health outcomes has been well documented in works such as “American Health Care Paradox”.³⁰ While the United States spends more on healthcare services, as a percentage of GDP (16 percent), than other comparable economies, it spends less (9 percent of GDP) on social care than those same comparisons.³¹ In the context of

³⁰ (Bradley, Sipsma and Taylor 2017)

³¹ Ibid.

making good health good business, the opportunity is to allow insurers to manage more spending including investments in health, so long as they are cost-effective, determinations of which will vary by market-segment. The goal is to get better outcomes for the same or lesser spending per person.

The same principles would apply for the insurers. By creating a competitive dynamic based on the health impacts of their services, the insurance market would be driven to maximize the health-benefit-to-cost ratio to the recipient—not the service-availability-to-cost ratio. They will gladly take on high-value investments that improve health including augmenting the insurers' internal staffing mix, data-systems, and other infrastructure needed to accomplish improvements in their population's health so long as there is a perceived risk-adjusted benefit to doing so.

For insurers to have good health be good business, they need to have a higher perceived risk-adjusted profitability by investing in good health. The barrier often identified is a rate-setting process that is tied to historical healthcare spending in short-term cycles. This is a critical issue that cannot be understated. If the rate-setting process does not account for the value produced from investments in health the incentive is removed for managed care companies. Even for those who do have value-based purchasing included appropriately, the organizations often find that they will need to develop the organizational capabilities to turn good health into good business through investments in their value-chain. Creating value from investing in health requires both the funding mechanism and the operational capabilities to do so effectively.

Good Health as Good Business for Insurance Plans in the Employer Market: The end users of insurance in the employer market (i.e., employees) ultimately choose an employer to work for that then provides them insurance as part of a benefits package. Employees make their determination based on a large number of factors, of which insurance is only one. Ways to incent health plan investments in health include:

1. Regulators should allow insurers to treat value-based care payment as allowable medical expenses;

2. Employers should take actions to increase competition among insurance plans at the levels of employer contracts and employee enrollment; and
3. Decision-makers should have available improved information regarding the health impacts of their purchasing behavior.

Treating the impact that investments in health have as allowable medical expenses has multiple components. It means treating payments for care under value-based purchasing arrangements in the same way you would treat payment for medical services covered by the program. For the employer market, that only means including value-based payments in the Medical Loss Ratios.³² By including value-based payments for care in the Medical Loss Ratio, the plans in the employer markets will have more head-room to invest in health, without penalizing the plan by having the investments that improve health classified as administrative spending. In turn, the plans' profitability opportunity will not be myopically tied to the cost of healthcare services provided.

Employers should also seek to procure their insurance on the basis of favorable impact on health, not just the insurance or healthcare costs. Doing so would benefit the employer through their ability to recruit and retain more productive human capital.

Overall, these issues can meaningfully move insurers to invest in health because better health would mean winning more contracts with more employers to enroll more employees. Employers will then be more likely to select a plan with the best value measured in health-impact-per-unit cost because employees will weigh their improvement in health when making employment decisions.

Good Health as Good Business for Insurance Plans in the Individual Market: The same principles hold in the individual market, though there is the additional incentive for government regulation due to government direct spending through subsidies to support this market-segment. By including the transparency and information-reporting requirements, the government entities would be able to move the market's competitive forces to

³² Most premium rates in the employer markets are determined through competition and are not subject to strict rate-setting policies making other considerations unnecessary.

align with the desired benefit of better health in a direct fashion. If those requirements were in place and the health impact was presented in a way that shaped purchasing behavior, the individual market would move towards purchasing services on a value basis. Including value-based care payments as allowable medical expenses would also have an outsized impact in this market-segment.

In the individual market, as in the employer market, the rates which are charged for enrollees are a function of competition; however, the allowable nonmedical expenditures including profitability are limited by the volume of medical expenses. If a plan were to invest in the health of an individual in the market they would be able to retain the savings, but their ceiling for spending would be reduced and impact their profitability in disproportionate ways. While this may be incidental for small-dollar investments, the impact of transitioning a sizable book-of business to value-based purchasing could be problematic.³³

Good Health as Good Business for Insurance Plans in the Government Market: Governments can directly support many of the activities recommended in other market segments, but they can also act more directly to make good health good business for their Medicaid and Medicare programs. Because governments as purchasers have outsized buyer power, they can use that leverage to bring about major changes through contracting under existing regulations. Moving aggressively to managed care, including investments in health in the rate-setting process through value-based purchasing arrangements, and using data resources to develop a comparative marginal health-impact index among the plans can drive major changes for Medicaid and Medicare insurance programs that benefit the population's health, the government's overall budget, and allow insurers increased profitability opportunities that are tied to better health at lower total costs.

³³ A GHHI analysis of health-plan spending indicated that the proportionate impact of a 10 percent transition of traditional medical expenditures to value-based purchases could result in as much as a 62.5 percent reduction in the administrative budget for an organization during a year. Summary exhibits presented in the appendices.

For government market segments it is important not only to include the value of investments in health in the rate-setting process but to also include those value-based purchasing payments in their rate-setting process. If they do not, many of the same negative financial impacts will occur, most importantly premium-slide. This takes place because of the use of historical data is forward-looking for rate setting. Establishing a baseline, trends, and risk-adjusting expected payments all require determining what an appropriate baseline for costs will be. If value-based purchases are not included in that baseline, they cannot become a mainstay of what insurers are expected to pay for – that would be expecting the insurers to pay for something without the expectation that they would be compensated for doing so.

C. Making Good Health Good Business for Service Providers

Background: Service providers are governed by economics. They will need to adapt to new funding environments. Where surgical procedures, hospital stays, and complex testing may be the big-ticket items now, they may be replaced by comprehensive intervention programs, juvenile health-education campaigns, and gene therapies. There will still be a place for the existing healthcare services, but as insurers become more and more total-cost conscious, service providers will need to create new business offerings that meet the needs of their customers, largely those insurance plans they contract with.

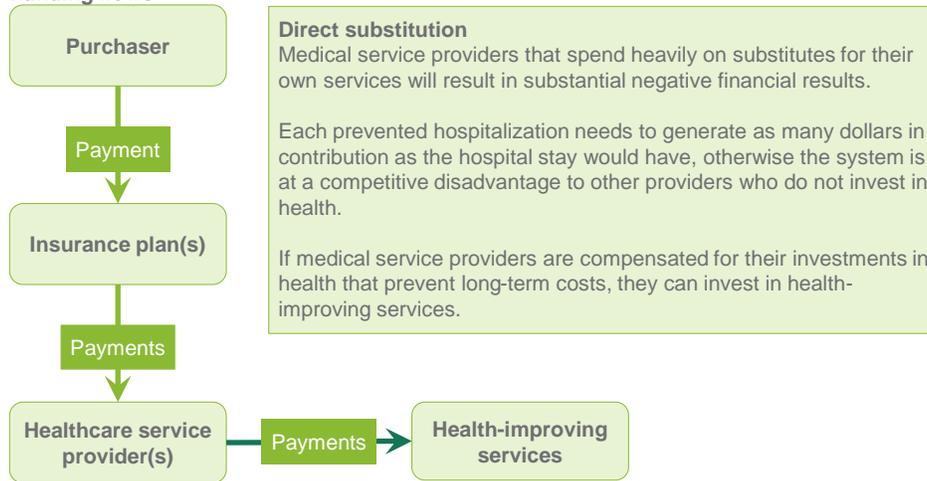
By driving insurance purchasing behavior with health benefit-to-cost ratios, insurers will pass this pressure down to their service providers and start selecting them for networks based on their ability to impact health (see Exhibit 13). This would inherently include cost-benefit assessments of addressing health-risk factors in their work that lie beyond the traditional list of services offered by established medical-service providers. New competitive forces will be created in the insurance market where service providers may need to partner or develop the capability to deliver high-value nonmedical services that are desirable to their insurance partners. Transportation, environmental services, and other types of nonmedical interventions would be common so long as they improve the value equation.

Exhibit 13



Without a payment model for health-improving services, healthcare service providers have no financial reason to invest in health.

Funding flows



Source(s): GHHI analysis of publicly available information.

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For services providers that improve health but do not deliver traditionally-defined healthcare services, there will be an opportunity to develop sustainable funding to address broad health-risk factors. This opportunity may create new business models and create an inherent push for services that are marginally adding value to care. Many nonprofit health-improvement service providers see this as a way to escape the current reliance on grants and other contributions and become sustainable social enterprises that turn good health into good business.

Good Health as Good Business for Service Providers in the Employer Market: Service providers will need to approach insurance plans with a business case that shows services attractive to employers based on human capital impact that are cost-effective to the insurance plan. Developing this business case is something many traditional healthcare service providers are uncomfortable with, preferring the standard rate negotiation. Many health-improving service providers have had to demonstrate impact for some time with their existing grant funders, but will have to adapt to a harsh business mindset both in operations and strategy.

Good Health as Good Business for Service Providers in the Individual Market: In the individual market segment, many of the same dynamics will apply in competing for insurance provider's attention, however, there is an additional opportunity. Service providers can do well here to invest heavily in cost-effective programs that drive down the cost of care for insurers.

Good Health as Good Business for Service Providers in the Government Market: Service providers in the government market have perhaps the largest opportunity. The CMS budget is rapidly approaching \$1 trillion per year, largely due to healthcare services costs. Each and every dollar of that spending is now up for grabs along with the existing support program spending.

D. Integrated Entities

Integrated entities deserve their own consideration. While the variety of the types of integrated entities dictates a more nuanced analysis for each, in general the approach is to determine the net-marginal cash-flow impact for any changes in operations. This practice is substantively more difficult than it sounds.

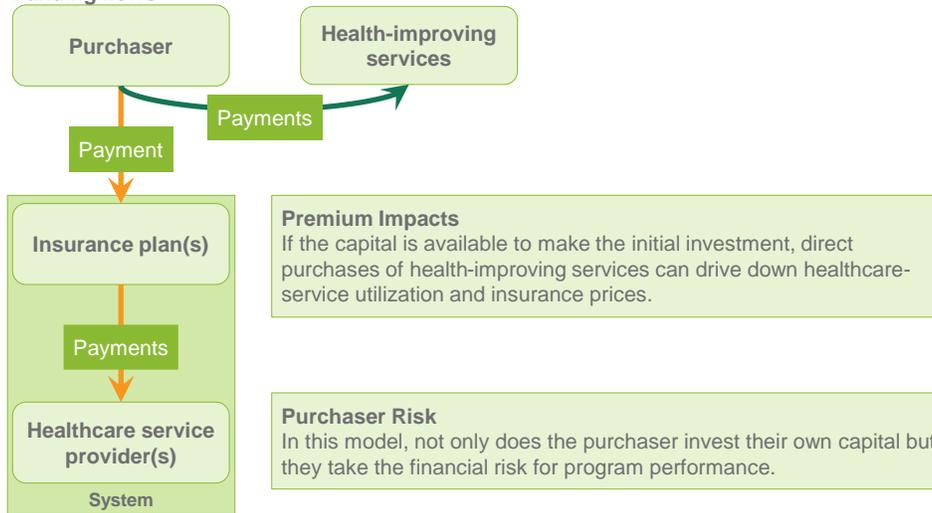
For insurance plans integrated with healthcare-service providers, outside investments in health can represent spending on a substitute for their services – a competitive threat in many ways. Despite the positive impact on long-term health, the net impact of reduced healthcare service spending flowing through their insurance entities represents reduced profitability, *see Exhibit 14*.

Exhibit 14



Direct purchases of health-improving services compete directly with integrated business models.

Funding flows



Source(s): GHHI analysis of publicly available information.

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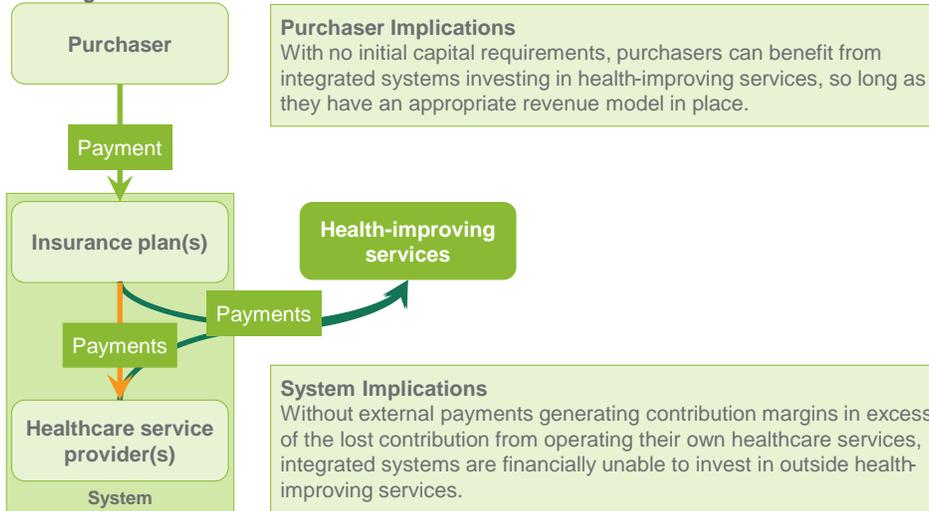
A second level is that if the integrated insurance company could invest in health-improving services directly, the net impact would depend on the cost-benefit profiles of the abated healthcare services and those alternative investments in health representing external cashflow expenses, *see Exhibit 15*.

Exhibit 15



Unless appropriately compensated, integrated systems investment in health-improving services detriment their own healthcare-service business.

Funding flows



Source(s): GHHI analysis of publicly available information.

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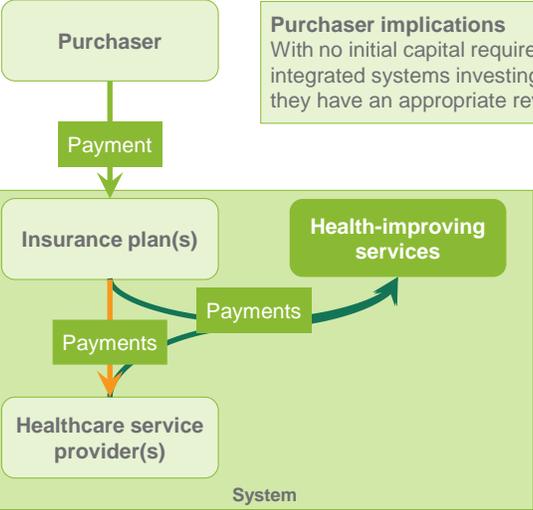
A third option is for integrated entities to include a new service provider type, one that represents investments in health. Having that additional component means that the organization stands to financially benefit from all parts of the value-chain and is most able to determine the net marginal cashflow associated with new service lines, *see Exhibit 16*.

Exhibit 16



If appropriately compensated, integrated systems are best positioned to internally manage the cost-effectiveness of health-improving services.

Funding flows



Purchaser implications
 With no initial capital requirements, purchasers can benefit from integrated systems investing in health-improving services, so long as they have an appropriate revenue model in place.

System Implications
 Integrated systems can be indifferent to which legal entity is driving profitability, so long as the aggregate gains from investments are attractive.
 The system then determines and takes the risk that the investments are cost-effective, improve health, and generate returns.

Source(s): GHHI analysis of publicly available information.

IV. Recommendations

Markets function on information and accountability. Improved transparency in the value provided by insurance plans and accountability for long-term costs can create a more effective mechanism for allocating funds between medical and nonmedical health-related services.

The United States has high costs and poor outcomes with the current structure of funding health through insurance for healthcare services, especially when evaluated on a cost-effectiveness basis. Changing the system means fundamentally changing the funding for health. We make three high-level recommendations, which we elaborate on thereafter.

Recommendations at a glance:

1. Now, if not as soon as possible, governments and insurers should move aggressively to managed-care arrangements and value-based purchasing models, ensuring the funding is inclusive of investments that improve health.
2. In the very short-term, consumer behavior should start to be a key driving force for health improvement and all parties can play a role facilitating this process by creating a measure or measure set for health in key market segments.
3. A long-term goal should be to divorce the prospective costs for a population from historical medical utilization.

Structural change is necessary to fund health improvement rather than further improvement in healthcare services access. Funding health solely through access to healthcare services drives improvements in healthcare service access without necessarily improving health and without funding programs that improve health, even when cost-effective. Several steps can be taken to improve health while driving down costs, often under current regulations and using existing processes. Governments can change the way they pay for procured healthcare insurance in the Medicaid and Medicare markets to include investments in health improvement through value-based purchasing mechanisms, where appropriate. Governments can then lead the way for other purchasers (i.e., employers and individuals) to drive markets to better health decisions through regulatory actions or investments that improve the function of insurance markets. The most beneficial long-term change would be when insurance purchasing is completely divorced from historical

medical utilization. Doing so can drive long-term investments in health that turn the roughly \$1 trillion/year CMS budget, largely comprised of medical expenses, into a trillion-dollar investment opportunity for health improvements.

Working towards an ideal system is a complex undertaking that will likely take years to implement, even with whole-hearted buy-in and a roadmap for success. In the interim, there are steps that system participants can take advantage of in the current system and benefit from making good health good business. The remainder of this section details those steps.

Making Good Health Good Business by Paying for What Works

Governments and insurance plans have been experimenting with different ways of compensating service providers. These arrangements have had varied success but can be powerful tools for creating business opportunities for organizations that want to profit from good health. The key issue is that federal and state government agencies must implement rate-setting practices that make good health good business in the long run by including purchases of value-based care as allowable medical expenses up to the point of cost-effectiveness. The impact of premium slide on rate-setting would otherwise, through baseline data, trend adjustments, and acuity adjustments,³⁴ remove the financial incentives that make good health good business. A revenue-neutral investment mechanism for the health of whole populations that leads to long-term cost reduction will be of substantial benefit to the government.

Governments and insurance plans can work towards better health and higher long-run profitability through these mechanisms. They can:

1. Move as much payment as possible, if not all, to managed-care arrangements;
2. Make purchasing value-based care a central part of the strategy for health improvement and structuring payments in publicly financed-insurance programs; and

³⁴ Through risk adjustment factors often associated with diagnosis (ICD) codes.

3. Explicitly include the payments for value-based care³⁵ as allowable medical expenses in medical loss ratios and in the rate-setting process.

Managed care arrangements allow for value-based purchasing, fee-for-service models do not. There is little, if any, room for innovation without moving to managed care. The value-based purchasing methods available can be effective, but would be significantly more effective if they were tightly integrated with public health and human services programs, which some states could be doing better. Very few public health and human services programs are actively seeking value-based purchasing arrangements with their managed care plans. This is a missed opportunity to align and blend funding for programs aiming at the same impact of improving health. Many programs are not even sharing data or coordinating programs to address shared strategic objectives.

Value-based purchasing arrangements, especially managing multiple simultaneous ongoing arrangements, can be a complex proposition. Operationalizing such programs effectively and efficiently can and will be the difference between ‘just another healthcare transformation’ and legitimately and meaningfully creating a way to invest in health.

Even with the best of intentions and incentives, without changing how managed care entities are compensated, attempts at change will have limited impact. It would be unreasonable to expect a firm to act against their own financial interests, but it is entirely possible to make good health good business for Medicare and Medicaid programs by including investments in health in the rate-setting process appropriately. While the states and federal methods may differ slightly, the key issue is that value-based care should be treated as an allowable medical expense in both Medical Loss Ratios and rate setting practices. Including the appropriate payments and publicizing this can go a long way in creating a public-health investment opportunity. Numerous industry partners have noted that Medicaid programs, for example, can explicitly put these notices of existing policy in their contracts for clarification.

³⁵ This is not a recommendation to include pay for performance incentives or other analogues as payments for care. Only payments for services, retrospectively based on the impact they have on health and healthcare costs should be treated as care.

Making Good Health Good Business Through Consumer Information

One key barrier to consumer behavior driving investment in health is lack of information. This could easily be corrected by creating a measure of comparative marginal impact that plans have on the health of their enrollees. Just having a measure of insurance impacts on health would allow consumers to drive the markets to improve health. Consider how this might play out in the different market segments:

- In government markets, Medicaid contracts could be awarded to plans based on their ability to reduce expected lifetime costs of beneficiaries – plans would have huge incentives to invest in the long-term health.
- In the individual market, insurance plans might compete based on the impact their plans have on the health of similar individuals – when selecting plans prospective enrollees might see a rating for how that plan has improved the health of similar enrollees.
- In the employer market, insurance plans would need to compete for contracts based on the cost-effectiveness of their impact on health and employers would factor in productivity gains from lost-working time among other factors.

Establishing a comparative measure of health plan's ability to improve health would be an undertaking with substantial benefits and doing so would require a substantive investment in securing data, compiling it in a usable manner, and then analyzing it for the comparative impact that plans have. The analysis would have winners and losers, but the insights around what works and what does not could lead to better care across the board while providing a meaningful benchmark for health-impact to drive consumer behavior.

Governments and, in some cases, non-governmental entities can also lead or direct the creation of arrangements that create business opportunities from improving health. While most of these recommendations are framed around government actions, others could take on these responsibilities – for example a health-information exchange, third-party academic partner, or public-health institute could play the role of trusted convener

and develop the necessary networks, infrastructure, and operations. There are many metrics in use to track the quality of care by health plans and, separately, population health such as Healthy People 2020 but they are not used to drive consumer behavior for employer, individual, or government insurance purchases.

The Moonshot: New Compensation Model

As a completely separate opportunity, it is possible to create a compensation model that uses only demographic information to determine the expected cost of healthcare services for a population³⁶ – barring any investments in their health. If this project is undertaken, it could create a massive investment opportunity for insurance plans to drive health improvement in the most vulnerable communities.

Consider the counterintuitive example of HIV rates. HIV and the associated treatments are very expensive for insurance plans to cover. Fluctuations in the HIV rates in a population, the development of new high-cost treatments, and other factors are major risks for those plans. Knowing this, the plans will advocate with governments to mitigate risk through the creation of high-risk pools, so the plan has a guaranteed funding mechanism for higher-risk HIV-positive patients and can offer lower rates to HIV-negative patients. This dynamic seems to benefit everyone, but has a substantive downside in that there is no incentive for a plan to invest in keeping the HIV rate down. If the rate goes up, the plan's costs go up but so does their revenue and aggregate medical-loss-ratio governed maximum profitability. Meanwhile, if the plan did not have the high-risk pool arrangement they would shoulder the financial burden for HIV rate increases, while they would stand to profit from consistent revenue under a compensation system that ignores medical history. Governments can use these incentives along with long-term awards in Medicare and Medicaid to create long-term investment opportunities for health-plans where good health is good business.

³⁶ And to do so in an actuarially sound manner, making this recommendation applicable to Medicaid and Medicare programs as well.

Imagine a world where health insurers are running marketing campaigns to snuff out smoking in low-income communities because it keeps their costs down rather than collecting premiums or tax-dollars to treat emphysema or cancers. What if insurance plans were investing in medical screening for hepatitis for citizens returning to civil society from incarceration because it was cheaper to start those programs in the prisons than waiting for release when communicable diseases spread through communities. How much of an impact would it have if health insurers were requiring education and treatment for opioid prescribers and those prescribed the treatment because the cost of every prescription-related opioid-affected pregnancy is preventable and is the plan's financial responsibility.

The same principle applies to many conditions—not just HIV and communicable disease rates or substance use but diabetes prevention and even investments in physical infrastructure such as housing and school conditions. Incentive programs can turn good health into good business across the spectrum. By partnering with insurers to create an investment opportunity for health, governments can turn the highest-cost most-complex problems into grand opportunities.

Even where the cost-savings cannot fully cover a program's cost, governments can reduce their required investments, to use the cost-savings to subsidize programs that do social good. Governments can then partner with the insurance plans to provide or facilitate finding the gap-funding to make programs work. Directly intervening in homes to prevent lead-poisoning may not be cost-effective from a Medicaid stand-point, but Medicaid savings can reduce the cost of lead-hazard abatement programs to make them workable for communities, especially when included in a basket of services that, in aggregate, is financially beneficial as an investment opportunity. In housing, comprehensive interventions have many benefits; while any one of the condition areas may or may not have a positive nominal return on investment in a short-time frame, in aggregate the programs are hugely beneficial over the long-run. Overcoming the initial funding gaps can be as simple as changing the way insurers are compensated.

The National Academies of Science, Engineering, and Medicine's Committee on Accounting for Socioeconomic Status in Medicare Payment Programs published a paper³⁷ that seeks to add layers of demographics and social determinants of health into rate-setting practices that moved in this direction, but stopped short of going far enough. The paper did lay the early-stage groundwork, the core metrics that could compose such a prospective rate-setting mechanism, though more needs to be done. An early-stage mathematical concept model can be developed with relative ease and be piloted by a forward-looking community.

In the long run, governments can benefit most from this shift – moving to a determination of the appropriate costs for government-funded insurance, such as for Medicaid patients, from historical medical utilization to a new methodology that focuses on the root causes of medical utilization rather than the historical patterns thereof.

³⁷ (National Academies of Sciences, Engineering, and Medicine 2017)

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